

# Papua New Guinea: Smallholder Support Services Pilot Project



# Performance Evaluation Report

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## Papua New Guinea: Smallholder Support Services Pilot Project

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Independent Evaluation: PE-763

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## NOTES

- (i) The fiscal year (FY) of the Government ends on 30 June. FY before a calendar year denotes the year in which the fiscal year ends, for example, FY2012 begins on 1 July 2011 and ends on 30 June 2012.
- (ii) In this report, \$ refers to US dollars.

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# Abbreviations

ADB	–	Asian Development Bank
DAL	–	Department of Agriculture and Livestock
DOF	–	Department of Finance
DPM	–	Department of National Planning and Monitoring
EIRR	–	economic internal rate of return
GDP	–	gross domestic product
HDI	–	Human Development Index
IED	–	Independent Evaluation Department
M&E	–	monitoring and evaluation
MIS	–	management information system
NADP	–	National Agriculture Development Plan
NGO	–	nongovernment organization
NZAID	–	New Zealand Agency for International Development
OLPG	–	Organic Law on Provincial Governments
PCR	–	project completion report
PCU	–	project coordinating unit
PNG	–	Papua New Guinea
PPER	–	project performance evaluation report
PPTA	–	project preparatory technical assistance
PRAP	–	participatory rural appraisal planning
PSC	–	project steering committee
RRP	–	report and recommendation of the President
SSCF	–	support services contract facility
SSPA	–	Support Services Provider Association
TA	–	technical assistance

# Currency Equivalents

Currency Unit – kina (K)

		<b>At Appraisal 15 September 1999</b>	<b>At Project Completion 13 May 2009</b>	<b>At Evaluation 20 December 2012</b>
K1.00	=	\$0.340	\$0.3590	\$0.481
\$1.00	=	K2.341	K2.7855	K2.080

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For their time and opinions, the team would like to thank the officials and representatives interviewed in Port Moresby from the Department of Treasury, Department of National Planning and Monitoring, and Department of Agriculture and Livestock, as well as other donors and stakeholders. For their time and support in the field, the team expresses its appreciation to the provincial governments and in particular the project staff of Morobe and Eastern Highlands. Finally, the team would like to acknowledge the Asian Development Bank staff from the Papua New Guinea Resident Mission and the Pacific Department for facilitating the field mission and engaging constructively in reviewing and commenting on the report.

# Basic Data

## Loan 1652-PNG: Smallholder Support Services Pilot Project

### Program Preparatory/Institution Building

TA No.	TA Name	Type	Amount (\$'000)	Approval Date
2980	Improving Provincial Agricultural Support Services	SS	150	22 December 1997

Key Project Data (\$ million)	Per ADB Loan Documents	Actual
Total project cost	11.49	8.90
ADB loan amount/utilization		
ADB loan amount/cancellation		

Key Dates	Expected	Actual
Fact-finding mission		22 May–10 June 1998
Inception mission 1		8–20 April 1999
Inception mission 2		19–29 October 1999
Appraisal mission		22 May–11 September 1998
Loan negotiations		17–19 October 1998
Board approval		10 December 1998
Loan agreement		5 May 1999
Loan effectiveness	3 August 1999	21 December 1999
First disbursement		25 January 2000
Project completion		30 November 2007
Loan closing	31 December 2004	30 April 2009
Months (effectiveness to completion)		95

<b>Borrower</b>	Papua New Guinea
<b>Executing Agency</b>	Department of Agriculture and Livestock

Type of Mission	No. of Missions	No. of Person-Days
Fact-finding	1	19
Inception	2	35
Review	9	173
Midterm review	1	24
Project completion review	1	33
Independent evaluation mission	1	

ADB = Asian Development Bank, No. = number, PNG = Papua New Guinea, SS = small-scale, TA = technical assistance.

# Executive Summary

The main objectives of this project performance evaluation report (PPER) for the Smallholder Support Services Pilot Project in Papua New Guinea (PNG) are to (i) assess the performance and impact of the project; and (ii) generate a series of findings, lessons, and recommendations. This PPER is of interest because of its implementation as a pilot project to ascertain the extent of adaptation during implementation and the sustainability and scaling up of lessons generated through Asian Development Bank (ADB) investment. The Independent Evaluation Department fielded the evaluation mission for this PPER from 26 November 2012 to 7 December 2012.

Agriculture in PNG is the main source of household livelihood and income for 70% of the population. PNG exports cocoa, coffee, coconut rubber, and oil palm, and has an active domestic market for other agricultural products. Most of the export crops are grown in smallholder plots but with increasing focus on outgrower<sup>1</sup> schemes and cooperative farmer production and marketing. The pilot project was designed to test the viability of increasing private sector approaches to technical assistance (TA) support for smallholder agriculture in PNG.

The pilot project became effective on 21 December 1999 and closed on 30 April 2009. The project was implemented by the national Department of Agriculture and Livestock (DAL) in Port Moresby and the provincial governments of Morobe and the Eastern Highlands. After the ADB-supported implementation, the project activities continued in Morobe and the Eastern Highlands. Project activities were expanded to the Central and Simbu provinces through provincial funding, plus TA grant finance from the New Zealand Agency for International Development.

The estimated project cost was \$11.49 million, including a \$7.6 million ADB loan from ordinary capital resources. Of the approved loan amount, 71% was disbursed and \$2.19 million was cancelled. The actual project cost was lower than the appraisal estimate because (i) low cost, locally sourced TA was more appropriate and effective than externally sourced expertise; and (ii) the absorptive capacity of the provincial DAL offices to identify and complete contracts was constrained.

The pilot project was primarily designed to generate a mechanism for service contracting and an increase in access to support services. The pilot project's design was consistent with the strategies of ADB, the government, and the national and provincial DALs. It was responsive to the needs of smallholder farmers at the time of design. The project supported the 1995 Organic Law on Provincial Governments that spearheads decentralization to provincial and later to the district government offices.

The pilot nature of the project was appropriate and well managed early on. However, more could have been done to take the opportunity to disseminate the lessons and to replicate and expand the pilot project after the midterm review. Good lessons emerged over time and have been adopted within the provincial DALs.

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<sup>1</sup> An outgrower scheme is defined as a contractual partnership between growers or landholders and a company for the production of commercial products (e.g., coffee).



However, the focus on output targets rather than learning led to the evolution of different models—not the one best practice model anticipated in the design that could be upscaled nationwide.

The project reach was 11,835 smallholder households compared with a target of 22,500 (52%). Of the contracts awarded, 80% were successfully completed. The targeted 30% participation of women was achieved. The number of private sector service providers was increased as lead farmers became service providers in their own areas and often became consolidators and market links, generating secondary economic benefits in their respective localities. The quality of services has increased, both through the project-introduced participatory rural appraisal planning (PRAP) methodology that has now been adopted by the provincial DALs and by subsequent development programs supported by such organizations as the World Bank. The links between the provincial DALs and the private sector service providers have improved; and in both provinces, the service providers have established a peak association of service providers that is assisting with sector development.

The trust accounts established through the project were, and still are, an important mechanism for flexible private sector-oriented service delivery. The demand-driven approach meant that the extension services provided were generally appropriate to farmer needs. Adoption of product training was constrained by availability of credit and of farm inputs. The financial management and post-harvest processing helped farmers to become more commercially-oriented for their farm and non-farm enterprise activities.

The economic internal rate of return for the pilot project approach was estimated at about 14%, indicating efficiency in achieving project outcomes. Nevertheless, the project was delayed for 3 years, project coordination costs were substantially higher than appraisal estimates, \$2.19 million of the loan was cancelled, and the counterpart funds from the Morobe provincial government were not fully provided.

The benefits generated through the project are likely to be sustained. The evaluation mission found that, even 3 years after project closure, the Support Services Contract Facility for each province is still active and the provincial governments continue to allocate funds for service providers contracting through this mechanism. The PRAP model has been adopted by the Coffee Industry Corporation, Simbu Province, and by a major nongovernment organization operating in Morobe Province. Based on the evaluation sample, over 50% of farmers supported through the pilot project are continuing to apply the knowledge learned through the service provided, 3 years after project completion.

Overall, the project is rated *successful*. It was assessed as being *relevant*, *effective*, and *efficient*. It was also rated *likely sustainable* and led to moderate institutional development and other impacts. The performance of ADB and the borrower was rated *satisfactory*. The government planned to replicate the pilot project approach through its National Agriculture Development Plan, 2006–2011 (NADP) but the evaluation found that the resources allocated were diverted for other priorities. Nevertheless, within the scope of the pilot project and with the adoption of pilot project approaches in other projects, the project has been rated *sustainable*.

The report concludes that the pilot project was successful but that its full potential was not achieved. For ADB, it provides useful lessons on how a pilot project

can generate important knowledge but shows that a customized monitoring and evaluation system is critical. Replication and upscaling mechanisms require a specific focus during implementation. ADB is no longer focused on the agriculture and natural resources sector in PNG but the lessons can be incorporated through work with partners in PNG and in other relevant ADB projects designed as pilot projects or focused on extension.

Important lessons were also generated regarding private sector contracting by the government in PNG; local planning in decentralization; and the value of combined product, financial, and life skills packages. More could have been done to capture the learning from the pilot activities and extend them nationwide in PNG. In this regard, the government may wish to consider whether to take a strategic approach to private sector involvement in agriculture through adopting the approach of the pilot project in all provinces and districts, as proposed in the NADP, or whether the lessons learned will remain within the pilot provinces.

# CHAPTER 1

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## Introduction

### A. Evaluation Purpose and Process

1. **Background.** The Smallholder Support Services Pilot Project became effective on 21 December 1999 and closed on 30 April 2009. The estimated project cost was \$11.49 million (actual \$8.9 million) including a \$7.6 million Asian Development Bank (ADB) loan from ordinary capital resources (actual \$5.4 million). The Independent Evaluation Department (IED) annually undertakes a number of project performance evaluation reports (PPERs) to assess project performance and contribute to learning. This PPER contributes to that requirement. In addition, as Papua New Guinea (PNG) will not be included in a planned regional evaluation of ADB investments in the Pacific region during 2013, this PPER provides evaluative evidence of ADB's support in PNG. Together, the PPER and the regional evaluation will provide useful lessons in relation to the evolution, results, and challenges of ADB operations in the Pacific.

2. **Objectives.** The main objectives of the PPER are to (i) assess the performance and impact of the project based on IED's methodology for evaluating sovereign loans; and (ii) generate a series of findings, lessons, and recommendations.

3. **Methodology.** The evaluation adopted the 2006 IED PPER guidelines,<sup>2</sup> focusing on three areas with seven evaluation criteria: (i) the performance of the project measured in terms of relevance, effectiveness, efficiency, and sustainability; (ii) institutional development (improved governance practices, skills, and capacity.) and impact; and (iii) the performance of partners, including ADB and the Government of PNG. For each evaluation criterion, a detailed analysis was carried out and a rating on the standard ADB four-point assessment rating scale<sup>3</sup> has been assigned. Appendix 1 contains the evaluation framework.

4. **Process.** The evaluation was conducted in three stages: (i) the desk review phase of existing documentation; (ii) the evaluation mission; and (iii) preparation of the main evaluation report, which incorporated relevant comments from ADB and the government. IED fielded the evaluation mission from 26 November 2012 to 7 December 2012. The purpose of the mission was to build on the desk review by gathering complementary information collected through interviews with key informants, for example, staff from the project and resident mission and visits to the project sites for direct observation and to meet with beneficiaries.

5. The mission worked and met with the Department of National Planning and Monitoring (DPM), the Department of Finance (DOF), and the national Department of Agriculture and Livestock (DAL) in Port Moresby; and visited provincial government

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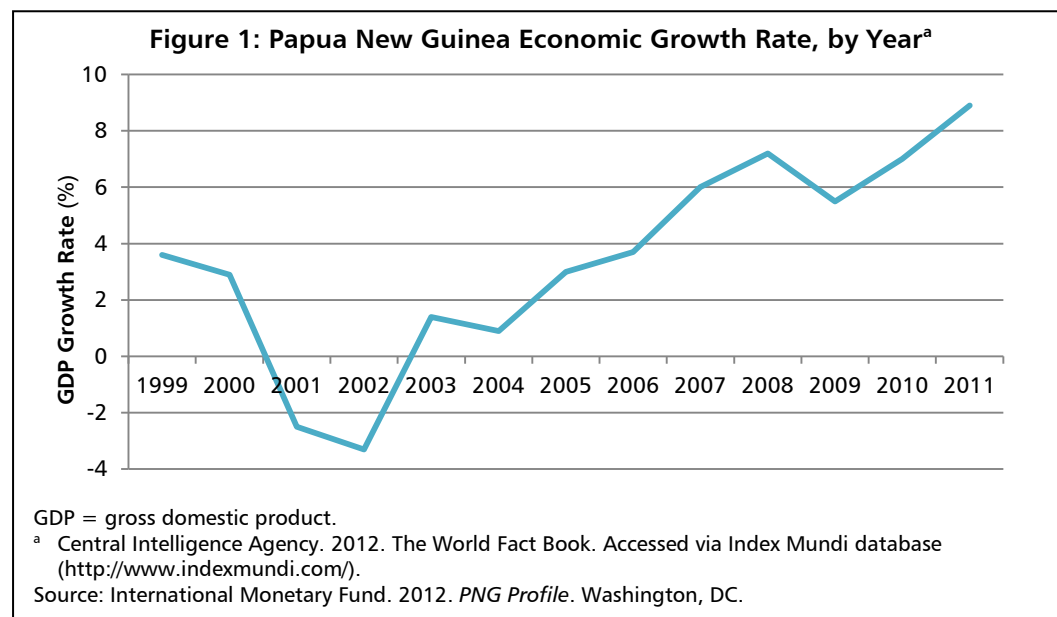
<sup>2</sup> Independent Evaluation Department. 2006. *Guidelines for Preparing Performance Evaluation Reports (PPER) for Public Sector Operations*. Manila: ADB.

<sup>3</sup> Rating scale: Highly satisfactory = 3; Satisfactory = 2; Less than satisfactory = 1; Unsatisfactory = 0.

officials in the project-supported provinces of Morobe, Eastern Highlands, and the expansion provinces of Central and Simbu. During the 2-week mission, the mission team<sup>4</sup> held discussions with about 70 pilot project staff, beneficiaries, and private-sector service providers, as well as about 30 other stakeholders (e.g., coffee traders and agro-processors) and ADB development partners. The evaluation mission itinerary is in Appendix 2 and the list of persons met is in Appendix 3.

## B. Background

6. **Economic context.** Traditionally, agriculture was the mainstay of the PNG economy, both in terms of domestic production and exports of coffee, cocoa, rubber, palm oil, and spices. Since 2001, gross domestic product (GDP) has grown by an average of about 3.4% per annum,<sup>5</sup> with an upswing in the growth rate since 2004 (Figure 1). The main economic growth has been in the mineral and energy industry sectors, but robust domestic growth has occurred in the last few years in response to broader economic development.



7. **Economic contribution of agriculture.** Oil, gas, and mining provide an important source of revenue for government operations. However, the agriculture and natural resources sector continues to contribute about 30.3% to GDP through export industries such as oil palm, coffee, and cocoa.<sup>6</sup> It also continues to provide food, income, and employment for an estimated 85% of the population. The predominant mode of farming is in smallholder farms, concentrated on about 25% of the total land mass of 117,858 square kilometers, including seasonal cultivation.<sup>7</sup> Farming is intensifying as a result of increasing population pressure on available land and diversification into combined food and cash cropping systems. A robust internal fresh food market exists although value chains are not well developed. For export commodity

<sup>4</sup> The evaluation mission comprised Andrew Brubaker, evaluation team leader; Dorothy Lucks, international consultant; and Ian Mopafi, national consultant.

<sup>5</sup> International Monetary Fund. 2012. *PNG Profile*. Washington, DC.

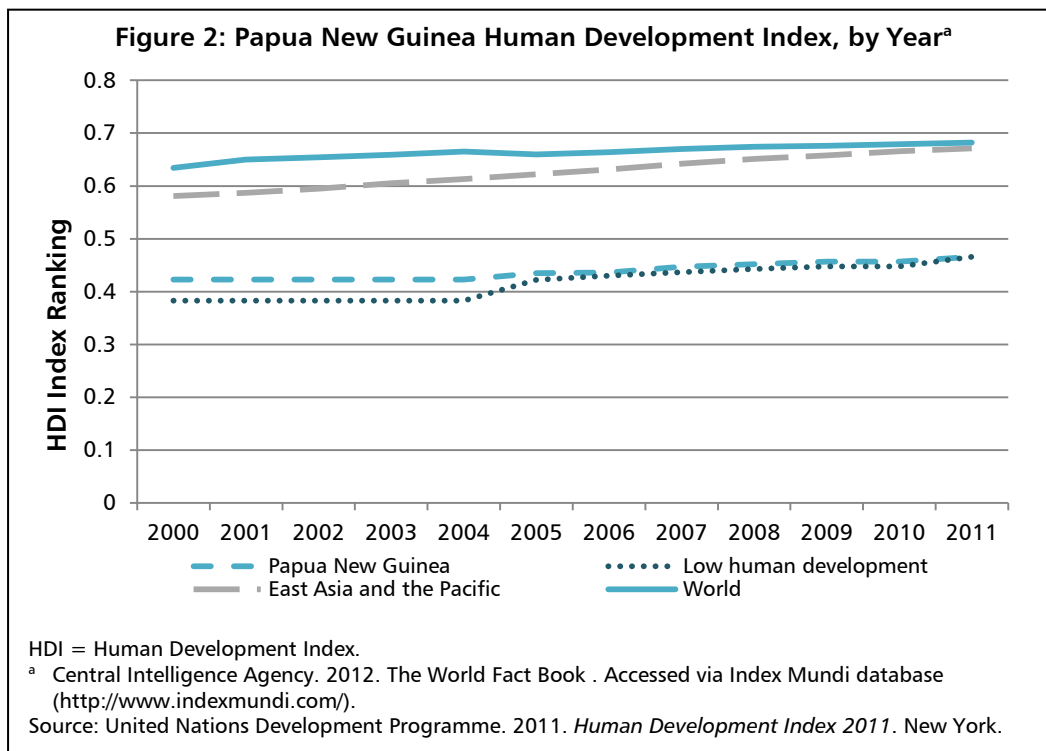
<sup>6</sup> Government of Papua New Guinea. 2010. *Papua New Guinea Medium Term Development Plan 2011–2015*. p. 86. Port Moresby.

<sup>7</sup> Australia National University. 1995. *Mapping Agricultural Systems of Papua New Guinea Project*. Canberra.

production, much of the production is still in small landholdings but an increasing number of consolidators and agro-processors provide employment and associated agro-industrial economic opportunities.

8. **Policy environment.** PNG became an independent sovereign nation in 1975 and now operates as a constitutional parliamentary democracy. The Organic Law on Provincial Governments (OLPG) was passed in 1976. The OLPG resulted in the establishment of 18 provincial governments, the autonomous region of Bougainville, and the National Capital District around Port Moresby. Each province has delegated functions and financial powers, and responsibility for their respective districts (160 districts nationwide). In 1995, the OLPG was amended to give greater recognition to districts as the focus for local development planning and service delivery.

9. **Regional development profile.** PNG's Human Development Index (HDI) is 0.466, which gives the country a low ranking of 156 out of 187 countries with comparable data.<sup>8</sup> The HDI of East Asia and the Pacific as a region increased from 0.428 in 1980 to 0.671 in 2012, placing PNG below the regional average. Despite the strengthening economy, the HDI for PNG has remained at low levels (Figure 2).



10. **Agricultural extension services.** After the OLPG was passed, agricultural services were largely decentralized through the provinces based on local development priorities that are determined largely through political will rather than sectoral development priorities. This process has resulted in limited government funding allocation to agricultural extension services. Various agencies such as the Coffee Industry Corporation, the Oil Palm Industry Corporation, and the National Agriculture Research Institute provide a network of offices throughout the country but with limited

<sup>8</sup> United Nations Development Programme. 2012. *International Human Development Index*. New York. The HDI is a mean of life expectancy, education, and gross national income measures.

coverage. At the district level, extension staff report to district managers for their activities and receive little direct support from agricultural officers at provincial headquarters.<sup>9</sup> In consequence, agriculture sector production, processing, and marketing operate at below optimum levels and farmers do not have access to services that could assist in improving productivity, quality, and income.

### C. Program Objectives

11. In December 1997, ADB approved small-scale project preparatory technical assistance (TA) to prepare a proposal for the pilot project, covering the provinces of Eastern Highlands and Morobe.<sup>10</sup> The pilot project was designed as a follow-up to the Agricultural Research and Extension Project.<sup>11</sup> The pilot project design responded to the findings of the Agricultural Research and Extension Project, which indicated that agricultural research findings were not being adequately disseminated through extension support networks. It also responded to the experience of ADB in supporting governance reform through devolution and private sector development. Fact-finding and loan appraisal missions for the pilot project were conducted in 1998. The resulting pilot project design was approved on 10 December 1998.

12. **Project goal and objectives.** The project goal was to improve agricultural support services to smallholder farmers in the two most populous provinces of PNG: Eastern Highlands and Morobe. The objective of the project was to increase the access by smallholder households in two provinces to improved agricultural support services, thereby increasing agricultural production, productivity, and the income of smallholders; and helping to ensure the sustainability of their farming systems. The expected outputs and outcomes were an increased number of smallholders with access to support services; improved intensity, quality, and effectiveness of support services; and improved linkages of service providers at different government levels. An associated objective was to enhance the status of women in agriculture. The project's design and monitoring framework is in Appendix 4.

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<sup>9</sup> Sitapai, E.C. 2012. *A Critical Analysis of Agriculture Extension Services in Papua New Guinea: Past, Present and Future*. Paper presented at the Consultative Implementation and Monitoring Council National Agriculture Conference. Lae, PNG. 24–25 May.

<sup>10</sup> ADB. 1997. *Technical Assistance to Papua New Guinea for Improving Provincial Agricultural Support Services*. Manila (TA 2980, for \$150,000, approved on 22 December 1996).

<sup>11</sup> ADB. 1991. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Technical Assistance Grant to the Independent State of Papua New Guinea for the Agricultural Research and Extension Project*. Manila (Loan 1110-PNG[SF], for \$22 million, approved on 29 October 1991).

# Design and Implementation

## A. Formulation

13. **Building on experience and lessons learned.** The objectives and modality selected for this project built on substantial previous experience and ADB's knowledge of the PNG agriculture sector and context. The formulation process identified lessons from previous projects and addressed those lessons as shown in Table 1. The project preparatory TA provided a solid basis for the detailed design. The approach recognized the limitations of the government's agricultural extension services and the growing activity in the private sector. This is in line with the ADB investment portfolio in PNG, which has increasingly focused on support to private sector development in agriculture and other sectors.

**Table 1: Lessons Learned from Previous Projects and Smallholder Support Services Pilot Project Formulation**

Lessons from Previous Projects	Smallholder Support Services Pilot Project Formulation
1. Weak implementation capacity	Select capable and committed provinces Incorporate capacity development for implementation
2. ADB needs to take an adaptive approach and provide problem solving support throughout implementation	Design as pilot project, including responsive design and adaptation throughout the project life
3. Diverse needs of farmers for extension support	Demand-driven approach, adaptive management process
4. Counterpart funds constrained	Gain commitment to counterpart funds at design stage
5. Difficult institutional arrangements resulting from transition in devolution	Pilot nature of project to start small and build effective processes

ADB = Asian Development Bank.

Sources: Smallholder Support Services Pilot Project design documents 1999, and evaluation findings.

14. **Pilot nature.** The respective national and provincial DAL offices were directly involved in the design. Contact was made with prospective service providers. The two pilot provinces were selected on the basis of potential for commercial agriculture development and willingness of the provincial DAL to provide counterpart funds. The choice of carrying out a pilot approach to test and refine the most effective processes for contracting of service providers was a reasonable approach, but the design did not provide sufficient guidance on the different processes required for an adaptive program approach necessary for implementing a pilot project. Consequently, ADB supervision

tended to revert to output-based supervision rather than the envisaged problem-solving, flexible approach with a view to subsequent replication and upscaling of the pilot project. As such, both the design and implementation of the pilot project limited the potential benefits.

15. **Design changes (capacity constraints led to loan cancellation).** The project was designed as a pilot project. For this reason, the design did not incorporate firm targets and a level of design change was expected. However, no major changes occurred in the design. The three components remained throughout the project period and the project scope remained within the two targeted provinces. Arguably, there was justification for a change of scope at the midterm review when it was clear that the absorptive capacity of the two provinces was lower than expected. An opportunity existed to extend the pilot to other provinces to test if the approach was replicable. The justification was that the mechanism was operating satisfactorily and there was demand from other provinces to adopt the project concept. However, the decision was to continue testing the mechanism within the two provinces. This led to the cancellation of 29% of the approved loan amount.

16. **Establishing an unrealistic target for beneficiary reach.** The project framework did not include fixed targets. This can be partially explained by the pilot nature of the project. However, the project coordinating unit (PCU) developed a self-generated target for the project to reach of 22,500 smallholders. The basis for the target was not clearly documented but probably developed from the idea that the project would be supporting larger and more commercially oriented agriculture. The target selected was overly ambitious given the small size of contracts awarded and the limited capacity for implementation. The target was never revised down to be more realistic.

## B. Rationale

17. **ADB strategic context.** At the time of project preparation, support to agriculture was considered a major priority in the country strategy along with fisheries, health, and urban water supply.<sup>12</sup> At the time the 1999 country strategy<sup>13</sup> was prepared, 18 projects had been post evaluated. Of the 18 projects, six (two port, three road, and one water supply) were rated *generally successful*; 11 were rated *partly successful*; and one was *unsuccessful*. Projects in the ports, highways, and water supply subsectors were more successful; projects in agriculture and development finance suffered long delays and cost overruns and were generally less successful. Consequently, the 1999 PNG country strategy placed greater emphasis on (i) a vibrant private sector, (ii) more market-oriented rural production, (iii) better delivery of rural services, (iv) stronger public sector management, (v) closer involvement of civil society organizations, and (vi) more private sector investment.

18. **Pilot project design.** The pilot project was designed to stimulate private sector involvement in TA to improve agricultural production, processes, and marketing. It was designed as a pilot project—flexible and demand-driven—to identify a cost-effective approach to service delivery. A key aim was to extend the accessibility of support services more widely to PNG smallholders. Morobe provincial government had already experimented with contracting support services in the agriculture sector. The trial had been successful with one contractor, but the mechanism was not clearly developed for

<sup>12</sup> ADB. 1994. *Country Operational Strategy: Papua New Guinea*. Manila.

<sup>13</sup> ADB. 1999. *Country Operational Strategy Study: Papua New Guinea*. Manila.



replication within Morobe or in other provinces. The pilot project was formulated to help expand and improve on this initiative in two provinces: Morobe and Eastern Highlands. These two provinces were selected on the basis of their capacity for implementation and the extent of economic activity and growth in the agriculture sector. Both the national government and the respective provincial governments accorded a high priority to the project and committed to contribute counterpart funds.

19. **Project components.** The project design included three components: (i) a support services contract facility (SSCF), (ii) capacity building, and (iii) project coordination. The first component was designed as a flexible, performance-based, cost-effective service delivery mechanism for contracting appropriate service providers. The second was to build the capacity of the national and provincial DALs to identify farmer service support needs; improve capability in procurement and contract management at the national, provincial, district, and local government levels; and to strengthen the delivery capacity of service providers. The third component for project coordination included operating costs for the national and provincial DALs.

### C. Financing, Cost, and Executing Arrangements

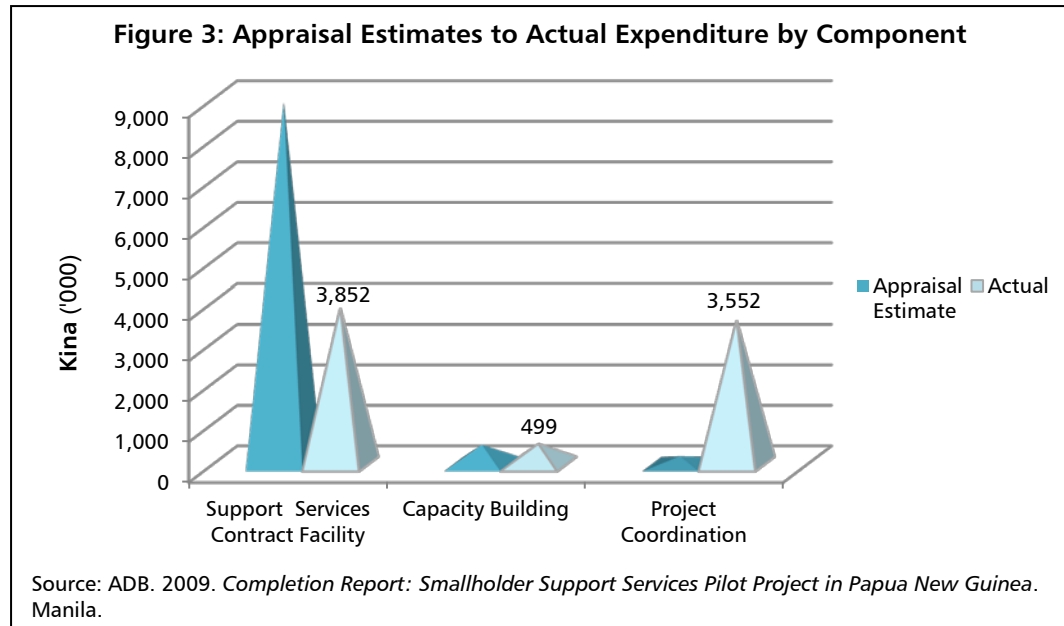
20. **Project financing.** The pilot project was financed through a \$7.6 million loan from ADB and joint local financing shared between the national government (\$0.92 million) and the two participating provincial governments of Morobe (\$2.08 million) and Eastern Highlands (\$0.88 million). The relatively small loan amount was approved given the pilot approach and limited scope of the project and the recognition that counterpart funding in PNG is constrained. The loan amount was increased by \$1 million prior to approval to account for the interest and commitment charges.<sup>14</sup>

21. **Project costs.** The actual project cost of \$8.9 million was 22.6% lower than the appraisal estimate of \$11.5 million. Of the \$7.60 million approved ADB loan amount, 71% was disbursed and \$2.19 million was cancelled. The first cancellation of \$2.00 million occurred after the midterm review when it became clear that progress was slow and the absorptive capacity was unlikely to accelerate rapidly in the remaining years of the project. The balance of \$0.19 million was cancelled at loan closure. Of the allocated government counterpart funding of \$3.89 million, 90% was released. However, the contribution of the national government (\$1.88 million) exceeded the expected amount by 202%. Eastern Highlands Province disbursed close to target (99%) and Morobe allocated only 36% of the targeted amount because of a change in investment priorities after elections.

22. **Costs by component.** The costs per component varied substantially from the original design for the SSCF and project coordination (Figure 3). No changes occurred in the components during implementation but the component activities were adjusted in response to farmer demands and as a result of implementation delays. For the SSCF, the demands were for smaller, practical contracts, delivered at the village level. This resulted in a lower-than-expected expenditure rate for the SSCF. Pursuant to delays in project establishment and in allocation of government counterpart funding and the smaller contract costs, the project period was extended. This resulted in higher-than-expected costs and an extended period for project coordination. Capacity building costs were fully absorbed.

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<sup>14</sup> Minutes of ADB Staff Review Committee Meeting, 30 October 1998.



23. **Executing arrangements.** The executing agency was the national DAL, and the implementing agencies were the provincial DALs in Morobe and Eastern Highlands provinces. A project steering committee (PSC) within the national DAL provided guidance, strategic and policy decisions, and overall monitoring of performance. The PSC met quarterly as specified in the loan agreement. A PCU was established in the national DAL to coordinate administrative and financial matters.

#### D. Procurement, Construction, and Scheduling

24. **Procurement and renovations.** Major project procurement was handled through the PCU in the national DAL. However, all of the SSCF procurement and local office construction was handled by the provincial DALs. Under the capacity building component, funds were made available for improvements to district offices. In Eastern Highlands, all eight district offices underwent renovations, mainly to improve security for protecting computer equipment, while in Morobe improvements were made to a provincial DAL training center. In Eastern Highlands, computers and other electronic equipment were delivered to each district office. In Morobe, three districts and six local-level government offices received computers. Procurement and installation of computers at the district and local-level government offices, along with computer literacy training, allowed DAL district officers to produce the required plans and contracting documents for project activities.

25. **Delays caused by procurement process.** The PCU procurement processes in the national DAL took time to implement, resulting in implementation delays. The provincial DAL procurement processes also took time to establish but once in operation performed effectively. Procurement processes were constrained by counterpart funds flow and the capacity of the national and provincial DAL officers to generate the terms of reference for advertising TA opportunities and to process contracts once awarded. The limited capacity also affected the ability of the executing and implementing agencies to implement procurement activities following ADB's procedures. The approved loan period was 5 years from August 1999 to December 2004. The approved loan period was extended twice for an additional loan period of 4 years, with final loan

closing in April 2009. The main reasons for the extensions were the delays in counterpart funding and inadequate absorptive capacity within the two provinces.

## E. Loan Covenants

26. The loan covenants were complied with except for delays in (i) submission of audited project accounts from the Auditor General's Office, (ii) release of counterpart funds from the provincial governments, and (iii) submission of quarterly progress reports. The loan agreement stipulated insurance arrangements for project facilities but the conditions were only partially complied with because insurance policies for government facilities were not mandatory and costs were high. The project was rated *unsatisfactory* in 2004 as a result of these delays; thereafter compliance improved and became satisfactory.

## F. Outputs

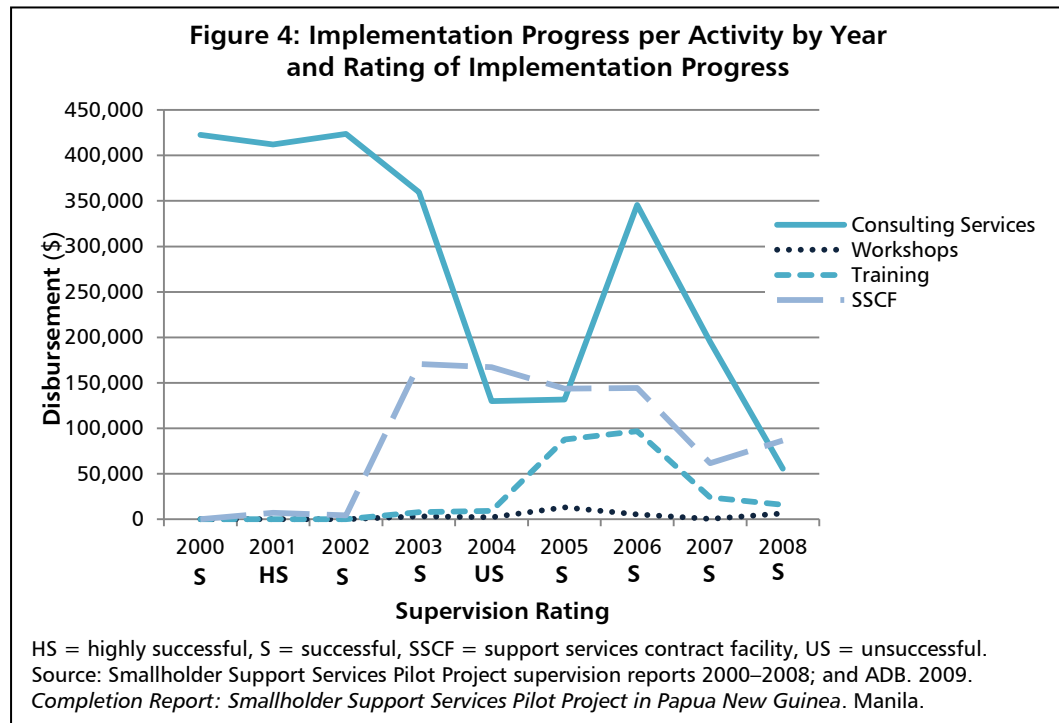
27. The pilot project was primarily designed to generate a mechanism for service contracting and an increase in access to support services. At the project development objective level, the evaluation mission found that, even 3 years after project closure, the SSCF for each province is still active. The project design framework established output indicators related to smallholder beneficiaries, training for government and service provider capacity building, establishing the support services contracting facility, and the PCU.

28. **No specific design framework targets.** Appendix 4 shows that the expected outputs were designed in line with the pilot nature of the project. The outputs were not defined with specific targets but were designed to indicate positive progress in overcoming identified challenges. Further, the lack of a comprehensive monitoring system constrained the quantification of outputs. Nevertheless, there were clear, positive outcomes in relation to the main output indicators.

29. **Target beneficiaries.** The achievement for the number of direct SSCF participants was 52% of the PCU's target of 22,500 beneficiaries. The increased intensity of services is reflected through the 628 contracts supported by the project. There were no specific targets for the number of contracts, but early annual targets prior to midterm were all exceeded.

30. **Increased number of service providers.** The pilot project has been instrumental in increasing the number of private service providers and in strengthening linkages between the service providers and the government. At the time of the evaluation mission, the number of service providers on the provincial DAL databases was about 300 in Morobe and 60 in Eastern Highlands. The links between the service providers and the provincial DAL were stronger in Eastern Highlands where a close working relationship had been forged and many of the service providers were direct contacts of provincial DAL officers or had been identified through the pilot project contracts as lead farmers and potential service providers. In Morobe, the provincial DAL involvement and links were not as direct with the support of services providers but the development of the Support Services Provider Association (SSPA) was active. There was a good link between the SSPA and the provincial DAL through the provision of support by the project staff in establishing and operating the SSPA.

31. **Project implementation.** Throughout the project period, ADB supervision missions generally rated the project *successful*. However, one supervision mission in 2004 rated the project *unsatisfactory* because of noncompliance with loan covenants in relation to submission of the required audit reports. Activities were packaged into consulting services for a range of major TA contracts; training for national and provincial DAL and SSPA staff; and TA workshops. The implementation performance by component activity expenditure varied across the project period, as shown in Figure 4. The pattern of expenditure illustrates the response to demand shifting from formal consultancy and training to the responsive, local support services through the SSCF.

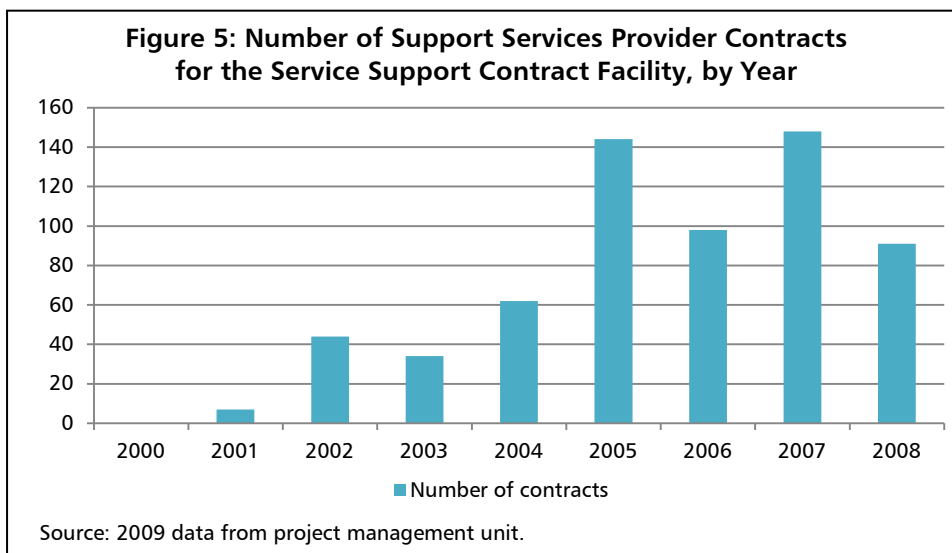


32. **Consulting services.** The focus on consultancies in the first few years, 2000–2002, of implementation reflected a sector-driven approach and investment in preparing the provincial DALs for SSCF implementation through the participatory rural appraisal planning (PRAP) tool. This tool was appreciated by farmers and provincial authorities and identified as a suitable mechanism for identifying farmer support requirements. As such, the DALs and SSCF were able to develop more appropriate and demanded training programs. The evaluation mission found universal positive feedback on the effectiveness of the tool although the process has now been streamlined. The second peak in consulting services was due to two specific consultancies for monitoring and evaluation (M&E), which were not successful, and a public sector consultancy that yielded positive results in planning for sustainability.

33. **Training and workshops.** Over the life of the project, 25 formal training courses were conducted for improving the technical and managerial and administrative skills of staff and service providers. Courses and workshops were attended by 603 individuals, comprising 349 DAL officers and 254 service providers, smallholders, and members of civil society. Based on feedback from provincial DAL staff, the training numbers meant that most staff had received several opportunities for skills development and all service providers received training. Most of the courses related to management capacity development, such as PRAP facilitation, computer training,

proposal writing, community planning, and extension project evaluations. The remainder related to technical skills such as crop husbandry, bee keeping, and financial management. For these technical skills, service providers accounted for 80% of participants, provincial DAL officers 20%. In comparison cost per participant for training was K1,424 compared with K130 for the SSCF contracts. This was due to the delivery mechanism in central locations, requiring transportation, accommodation, and allowance fees; and senior resource persons requiring higher fees than the SSCF activities.

34. **Support service contract facility.** The contract facilities were established in both provinces. The trust account to support the contracting approach proved to be an important mechanism for flexible service delivery. Both provinces are still actively using the accounts both for project activities and as a mechanism to facilitate other activities. The contracting process has also been adopted as an ongoing mechanism for service provision within both provinces. The number of contracts serviced over the duration of the project was 628. The increasing expenditure through the SSFC from 2002 demonstrates the successful establishment of the SSCF mechanism but thereafter the average value of the contracts decreased. This was due to the demand from the farmers for practical training in their own villages. In terms of access to services, the number of contracts increased in the second half of the project (Figure 5).



35. **Support services contracts awarded.** Through the SSCF management units, 812 support services provider contracts averaging K5,055 were awarded. Of these, 628 or 77% were for direct smallholder support. The rest were for capacity building, information and public awareness campaigns, and extension program planning and evaluation. A total of 386 farmer groups participated in project activities. Of these, 33 or 8.6% were women-only groups. Contracts were awarded to improve skills in growing 12 types of crops and six types of livestock husbandry (including fish), and two additional modules were developed in response to demand to improve bookkeeping and financial management skills, cooking skills, and downstream processing. The latter skills development contributed to strengthening business enterprise capability and improved life skills such as household budgeting and household nutrition (Box 1). The success of these two modules was so apparent that Simbu, the expansion province, has embedded the two modules as a package for any technical training requested. Of the contracts awarded, 650 or 80% were successfully

completed in a timely manner. Uncompleted contracts were due to several support services providers abandoning the contract after receiving an advance or not reaching the proposed participants effectively. Support services providers whose contracts were cancelled were dropped from the support services providers database.

#### Box 1: Training for New Production

Mr. Kaukesa in Mutsing Village, Makham District was a subsistence farmer growing mainly beetle nut, coconut, and root crops. Through the Smallholder Support Services Pilot Project, he received training in cocoa husbandry and farm time management. He invested K7,000 in establishing 0.25 hectares of cocoa. He had not grown cocoa before the training and applied the learning of time management to both his cocoa crop and for better management of his time for other crops, too. He has now been harvesting cocoa for 4 years and earns an annual net income of K1,500 (2012 prices).

Source: Evaluation mission field visit, December 2012.

36. **Project management.** The PCU was established, staffed, and equipped as scheduled. Quarterly PSC meetings were conducted and project progress reports regularly submitted to ADB. A computer-generated tracking procedure was helpful in monitoring the SSCF contracts but the overall project management information system (MIS) was delayed and incomplete. However, a process for evaluating the extension program using trained provincial and district DAL officers and support services providers was developed by an external consultant. This assisted in assessing the efficiency and impact of the project investments. Overall, project management went smoothly.

## G. Consultants

37. The project involved the procurement of long- and short-term consultants. In general, the consultants appointed for the project design TA and to assist in project management performed satisfactorily. The performance of the support services providers was also generally satisfactory. An exception was the implementation of the contracts for M&E. The appointed consultant did not complete the work requirements; furthermore, the design underestimated the level of TA required to design and implement an effective M&E system and MIS for a pilot project. Consequently, the project did not have a functional M&E system that could assist the project managers in effectively tracking progress. The project offices did attempt to install their own data management systems and this assisted in the preparation of progress reports but was not sufficient for trend analysis. Similarly, the project collected good data that could have been analyzed to assist national and provincial DALs in planning for improved support to smallholder development but this potential was not realized.

# Performance Assessment

### A. Overall Assessment

38. The overall rating of the project is *successful* (Table 2). The table shows that the post-evaluation mission lowered the project completion report rating for relevance. While the project design was relevant, implementation followed the standard project approach, focused on meeting targets, and was insufficiently adapted to the pilot nature, which required some flexibility to adjust the project based on findings and learning. Nevertheless, the objectives of the pilot project were well considered and timely in relation to PNG's focus on increasing private sector development in the agriculture sector and decentralization in governance. The project inputs resulted in positive performance, although the project experienced a series of delays and cash flow issues. The efficient performance was largely due to an economic internal rate of return that exceeded the target despite the delays in counterpart activities and higher coordination cost. ADB and borrower performance was considered *satisfactory*. Sustainability, as assessed from the evidence of continued activity 3 years beyond project closure, was *likely*. Contracting processes are still active and agricultural activities supported through the pilot project have demonstrated a reasonable level of ongoing activity and subsequent growth.

**Table 2: Project Performance Ratings**

Ratings	PCR	IED Validation	PPER Mission Rating	Comments
Relevance	Highly Relevant	Relevant	Relevant (2)	The project was designed as a pilot project but implemented as a project, leading to some disconnection between objectives and implementation
Effectiveness	Effective	Effective	Effective (2)	SSCFs were established and are still operating
Efficiency	Less Efficient	Less Efficient	Efficient (2)	EIRR exceeded economic cost of capital, despite partial loan fund cancellation, and delays in provision of counterpart funding
Sustainability	Likely Sustainable	Likely Sustainable	Likely Sustainable (2)	Still in operation after project period and intention to continue
Overall Assessment	Successful	Successful	Successful (2)	Positive benefits achieved despite inefficiencies

Table 2: Project Performance Ratings—Continued

Ratings	PCR	IED Validation	PPER Mission Rating	Comments
<b>Other Criteria</b>				
Performance of the Borrower and Executing Agency	Satisfactory	Satisfactory	Satisfactory	Government counterpart funding was largely complete, although delayed; allocated coordination costs were exceeded
Performance of ADB	Satisfactory	Satisfactory	Satisfactory	Supervision was regular and thorough; opening of country office facilitated communication
Impact	Not Rated	Moderate	Moderate	Impact was substantial and lasting for about 55% of smallholders

ADB = Asian Development Bank, EIRR = economic internal rate of return, IED = Independent Evaluation Department, PCR = project completion report, PPER = project performance evaluation report, SSCF = support services contract facility.

Note: Rating scale: highly satisfactory = 3; satisfactory = 2; less than satisfactory = 1; unsatisfactory = 0. The overall assessment is based on the performance of relevance, effectiveness, efficiency, and sustainability.

Source: Independent Evaluation Department.

## B. Relevance

39. **Project design relevance.** The pilot project design was consistent with the strategies of both ADB and the government, the national and provincial DALs, and the needs of smallholder farmers at the time of design. The project was in line with the strategic priorities of the 1999 ADB country operational strategy and the government's Medium Term Development Strategy, 1997–2002. The strategy emphasized the need for (i) providing training at the lower levels of government to ensure that the new roles and responsibilities associated with decentralization are carried out as envisaged, and (ii) contracting out the delivery of services with the aim of improving flexibility and cost-effectiveness. The development strategy was complemented by the 1995 OLPG in that it focused on improving the impact and efficiency of government services.

40. The project supported the strategic objectives of ADB for PNG and the development strategy of the government to revive a stagnant agriculture sector. An important priority of ADB's operational strategy was to improve policies and services in the agriculture sector, which provides income to 85% of the population. To stimulate smallholder production and agricultural growth, it was necessary to increase public service delivery to the rural population as well as improve operational links with semiprivate and nongovernment service providers. Improvement of links was to be facilitated by adopting appropriate contracting-out arrangements. The government therefore needed to enhance its capacity to identify smallholder needs, choose and contract appropriate service providers, and supervise service delivery. The project was designed to assist the government in this effort and hence is considered relevant.

41. **Continuing relevance.** The provision of extension services remains a critical challenge in PNG. There is continued need for support at the national and provincial levels. In addition, there is growing recognition of the need to support and provide extension to the district levels. The demand-driven nature, using PRAP, of the pilot project and the potential to involve all levels of government while incorporating a role for a growing private sector remain relevant. In addition, the pilot project design



included a capacity building component that was essential in addressing the weak implementation capacity of institutions in PNG. At completion, the institutional capacities of DALs and service providers were improved in community-based planning and implementing extension support services. The project supported the OLPG implementation by requiring provinces and districts to take responsibility for most of the counterpart funds and for allocating resources. The trust accounts are still operational and the provincial governments continue to allocate a small allowance to continue support services provider contracting. In recognition of the continued potential of the project's approach, the New Zealand Agency for International Development (NZAID) has provided a TA grant to support the continuation of the pilot project in the two pilot project provinces and expand it to two additional provinces, Simbu and Central. The PRAP model has now been adopted by the Coffee Industry Corporation, Simbu Province,<sup>15</sup> and by a major nongovernment organization (NGO) operating in Morobe Province. It was also integrated into the National Agriculture Development Plan, 2006–2011 (NADP) and a related agricultural commodity development project of the World Bank.

42. **Design innovation of the pilot approach (decentralization and private sector contracting).** The project built on lessons from previous ADB projects, the experiences of the Australian Agency for International Development, the International Fund for Agricultural Development, and the World Bank, and an analysis of the challenges to providing support services for smallholder farmers. The previous Agricultural Research and Extension Project aimed to support research and extension services. The pilot project had a similar objective but used a new approach. Given the relatively novel approach, the idea of a pilot project was appropriate. It introduced a new form of decentralized, participatory planning that is being adopted beyond the project. In addition to strengthening the implementation capacity of the executing and implementing institutions, the pilot project introduced the relatively new concept of contracting the provision of support services to private and public providers. While contracting was not a new concept in PNG, it was not commonly used in agriculture support services and was an innovative way of providing extension services.

43. **Alternative approaches.** The pilot nature of the project justified the more limited project size and scope. However, given the challenges experienced related to delays and the cancellation of loan funds, consideration could have been given to a smaller TA to test the approach, then upscaled into a larger project; or including the pilot as a technical component within a larger project with a commercial focus and larger absorptive capacity for loan funds. Further, insufficient consideration was given during the design to the implications of implementing a pilot project, given standard M&E and supervision processes. For example, there was no guidance on how the replication and upscaling of the pilot findings should be undertaken during implementation.

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<sup>15</sup> Central province was willing to replicate the pilot project's approach but experienced issues resulting from poor human resource recruitment for project coordination, so it ceased funding the project. The evaluation mission found that, despite little activity to date, there is still interest to replicate the project but with a different staffing arrangement.

44. **Innovation within the sector.** The contracting approach was to form producer groups for training. This has resulted in the formation of a number of producer groups that have since grown, diversified, and explored new products (e.g., cassava processing [photo on next page]). Small groups formed through the pilot project have developed into agricultural production and marketing cooperatives, improving the internal service provision and increasing the ease of servicing for provincial and district DAL officers.



45. **The project is assessed relevant.** The pilot project design was in line with the national development context as well as ADB strategies and the guiding government policies such as OLPG, which promotes decentralization and the National Agricultural Development Plan. The pilot project introduced the concept of contracting the provision of support services out to private and public providers. In introducing a new concept, the design suggested the project be implemented as a pilot project and then be scaled up and replicated. The pilot nature of the project was effective but lack of good monitoring systems constrained learning and responsiveness. The project mechanism, focusing on output delivery, was not sufficiently responsive to the learning process. The project overestimated the absorptive capacity of the provincial governments and existing service providers related to the ability to provide support to small farmers who are not fully commercialized.

### C. Effectiveness

46. The effectiveness of the pilot project was primarily assessed in terms of the goals of increasing the production, productivity, and income of smallholder farmers in the Eastern Highlands and Morobe provinces and ensuring sustainability of farming; and enhancing the status of women in agriculture. In addition, the project aimed to establish an effective mechanism for financing private sector service provision in a manner appropriate to smallholder needs and to increase access to support services for women smallholders. The objectives of the pilot project were to increase the quantity, intensity, and quality of support services for smallholders; and strengthen private sector services providers and their linkages with government. The project design framework identified five outcome indicators but did not specify targets. The achievements in relation to the outcomes are summarized in Table 3.

Table 3: Outcome Indicators and Achievements

Indicator	Output
1. Increased number of smallholders with access to support services	Number of smallholders reached: 11,835 (52% of target) Good spread of contracts across districts demonstrating improved access
2. Increased intensity of support services	About 35% participation of women Limited provincial DAL extension budget before project, with budget covering only staff costs Increased activity during implementation due to project management and SSCF budget
3. Improved quality of support services	628 support service contracts completed through the contracting facility PRAP addressed farmers' needs better than previous top-down DAL approach Service provider training improved quality of services 80% of contracts were successfully completed
4. Increased number of service providers	Strengthened existing service providers and developed new "lead farmer" service providers
5. Improved linkages of service providers at different government levels	Improved linkages in general but mixed results between national and provincial governments and the respective DALs In Eastern Highlands, the links were good between government and service providers In Morobe, good relationships among service providers but limited relationship between provincial DAL and service providers

DAL = Department of Agriculture and Livestock, PRAP = participatory rural appraisal planning, SSCF = support services contract facility.

Source: ADB. 1998. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to Papua New Guinea for the Smallholder Support Services Pilot Project*. Manila; and evaluation findings.

47. **Appropriateness of services to smallholder needs and women.** Only 52% of the targeted households were reached but the targeted 30% participation for women was achieved—33% in Eastern Highlands and 37% in Morobe. The demand-driven approach to identification of service requirements meant that the extension services provided were generally appropriate to farmer needs and largely delivered at village level. The participants considered this field-based approach satisfactory although it resulted in smaller contracts than expected and lower funds utilization. The participatory planning tools were unanimously supported by DAL officers, service providers, and farmers as a useful tool for identifying smallholder needs and the PRAP approach is still being used for needs identification. The training in financial management was as important as product training because it helped farmers to be more commercially oriented for all of their farm products. Overall, the training served as a catalyst—allowing farmers to expand and diversify their activities (Box 2). The trust account is an important mechanism for flexibility service delivery.

### Box 2: Smallholder Support Services Pilot Project as a Catalyst for Smallholder Development

The Smallholder Support Services Pilot Project served as a catalyst for development in the Waran community of Kabwum District, Morobe Province. The community began with participatory planning, which identified opportunities and constraints for coffee development. After receiving basic training from the project on growing, drying, processing, and marketing of coffee, the community had the basic skills and capacity to receive support from other sources, which allowed them to further develop their coffee production. For example, following the training, the provincial government provided the community with an ecoprocessor (pictured) to pulp and wash the coffee beans. At the time of the evaluation, Waran has 65 hectares of coffee and has plans to expand to 125 hectares. It is also working with other partners to explore opportunities to install a micro hydro facility for electricity.



Source: Evaluation mission field visit, December 2012.

48. **Improvement in support services to smallholders.** Prior to implementation of the project, government extension services had almost ceased to operate and agriculture was in decline. The project benefited the pilot provinces by providing technical inputs to farmer groups and building the capacity of the provincial DALs to manage support service contracts. It improved the access of smallholders in the two provinces to agricultural support services through the 638 contracts supported by the contracts facility. The training component was well received by farmer groups, government employees, and support services providers. The adoption of skills and technologies helped to improve the livelihood of participating smallholders and their families. The improvement in quality of support services was assessed as positive, based on the feedback from the participants in service delivery activities. There was no baseline from which to measure improvement but the proxy measurement was level of satisfaction with services provided. An assessment of the service provider feedback was that 80% of contracts were satisfactorily completed. Supervision missions noted some concern that the feedback forms were gathered by the contractor themselves and therefore had inherent bias. During the evaluation mission, the team reviewed a sample of the feedback forms and the other associated data such as the provincial DAL feedback on the sessions and the post-activity feasibility assessment for the project completion report (PCR). Overall, the service feedback sheets are considered to provide a fair representation of the services provided and they show there was a high degree of satisfaction with the services provided.

49. **Strengthening of private sector service providers.** The number of active service providers supporting the smallholders in each province has risen sharply with the pilot project's support. The capacity building for provincial DAL and support services provider staff has been good, particularly for building skills in planning, contracting, and management for both the contractors and the government. The service providers have formed associations that have assisted in gaining and distributing information on available service provision opportunities. In Morobe, the association is registered active and has financial members. The range of service

provision has diversified from the original service providers that were mainly in technical services to a wide range of skills in post-harvest processing farm and enterprise management and marketing. In addition, SSCF management units decided to hire service providers from the support services provider database to monitor and evaluate the performance of other service providers. This self-monitoring practice was supported by some verification by the provincial and district DALs.

50. **Private sector support service provider financing mechanism.** The SSCF was established and operated. The flexible nature of the pilot project allowed it to adapt and recruit support services providers from leading farmers, entrepreneurs, and provincial DAL staff. The project strengthened the implementation and managerial capacity of the national and provincial DAL staff and the service providers. These contracting activities were new to provincial DAL staff and have been adopted and incorporated into their daily activities. Although more could have been done in terms of changing staff mind sets and functions through training and other activities, early in the project. This could have supported the envisaged changing roles of the provincial and district DAL staff from direct service provision to contract management. The training for staff in computer skills has also been important. SSCF steering committees were established in the two provinces as planned and met quarterly as expected. The provincial DAL SSCF management units assessed possible SSCF contract proposals and identified providers capable of carrying out the support services. The SSCF steering committee approved the proposals of the support services providers. This system provided provincial DAL staff, through PRAP, with experience in identifying extension needs, selecting and choosing support services providers, and implementing and monitoring extension programs.

51. **The project is rated *effective*.** Most of the expected outcomes were achieved. Despite the overoptimistic target of direct beneficiaries and the overestimated absorptive capacity of the provinces at design to identify, prepare, and implement contracts, the project was successful in extending the reach of support services across the provinces. The pilot nature of the project was effective but the lack of good monitoring systems constrained learning and responsiveness. Good lessons have emerged over time and have been adopted within the provincial DALs. Service provision has intensified and improved in terms of access, quality, and diversity of services provided. Provincial DAL staff and the service providers are more capable and their roles have shifted to service the smallholder sector more effectively in the two target provinces. The focus on output targets rather than learning led to the evolution of different models, rather than one best practice model that could be upscaled nationwide.

## D. Efficiency

52. The project was extended twice and over \$2.19 million of the loan was cancelled, \$2 million after midterm review as surplus, and \$0.19 unspent at project closure. Delays in provision of counterpart funds constrained project activities and contributed to the project not achieving its targeted scope. The national elections held in 2002 and 2007 further slowed implementation. The limited absorptive capacity in the provincial DALs, caused by unclear institutional arrangements and insufficient skill sets, also contributed to the delays. Nevertheless, the financial and economic rates of return were positive (slightly above target) and evidence was found during the mission of continuing increases in economic activity.

53. The economic internal rate of return for the support services provider approach was estimated at about 14%, indicating efficiency in achieving project outcomes.<sup>16</sup> The detailed approach to determining the EIRR was validated during the evaluation mission. This involved a return to 16 of the 62 farm enterprises assessed during the PCR (a 26% sample). The sample confirmed the high return on investment for some enterprises and the failure for others. Overall, a positive economic benefit was assessed to have been achieved by over 50% of the farmers. The PCR attributed the economic efficiency of the support services provider approach to agricultural extension to, among other things, the farmer-demand-driven nature of project activities, the performance-based service delivery system, and the devolution of responsibilities to the districts in identifying and managing field activities.

54. **Process inefficiencies.** Inefficiencies existed in the implementation process. The project was delayed by 3 years, \$2.0 million of the loan was cancelled, and counterpart funds from provincial governments were not fully provided. The delay mostly affected the efficiency of the activities aimed at building the technical, managerial, and administrative skills of staff and services providers. The delayed and incomplete installation of the MIS diminished the capacity of the provincial governments to monitor the SSCF process and outcomes effectively. Further, the project extension policy and guidelines and operating procedures were formulated only in the 5th year.

55. **The project is rated *efficient*.** Despite the inefficiency in the implementation process and the resulting delays and loan cancellations, the project is rated efficient because of the acceptable EIRR.

## E. Sustainability

56. **Continuation of the project.** There are positive indications of sustainability. The provincial governments have made commitments to allocate funds to support continued application of the contract facility model. Funds were allocated under the NADP for continued support of the support services provider model, but the expected support did not eventuate because political processes diverted funds to other purposes. Nevertheless, institutional arrangements for continued implementation of this model have been well established by the project and have been continuing. Stakeholders (provincial DALs, support services providers, and smallholders) are very familiar with their roles and gained significant experience in implementing the support services provider approach. Smallholders are using the skills and experience they gained from the project (Box 3) and are mobilizing their communities for continued and stronger links with the market (Box 4).

### Box 3: Continuing Community Economic Development

The Sehoka Community Group in Notofano village, Goroka district comprises 45 women and 30 men. The Smallholder Support Services Pilot Project provided training in fish pond husbandry. After the training in 2006, they established six new ponds as a collective enterprise with 120 fingerlings in each at a cost of about K1,000 per pond. The ponds have been very successful and now some members have their own fishponds. The net return on annual investment is about 35% and employment for young people has increased through fish husbandry, processing, and marketing.

Source: Evaluation mission field visit, December 2012.

<sup>16</sup> See Appendix 5 for PCR assessments.

57. **Replication of key elements of the approach.** The pilot project approach has drawn strong interest from other quarters within the agriculture sector and in decentralization initiatives. For example, the Coffee Industry Corporation has adopted the concept. Bris Kanda, a major NGO in Morobe Province, has applied the contracting-out approach in collaboration with the project. Simbu Province has adopted and is financing the concept. Other provinces have reportedly expressed interest in replicating the model. Local industry has noted an increase in the production of key commodities and a strengthening of business acumen and practices through the project. The increase in production contributes toward additional employment in downstream processing. All these indicate that the project is likely to sustain the outcomes beyond project completion.

58. **Capacity developed.** At the farmer level, there is evidence of enhanced capacity. A moderate proportion of activities are still operating and some champions are emerging who have achieved substantial growth, diversification, and commercialization (Box 4). Most farmers have not been able to sustain the specific activities for which training was designed because of lack of seeds or other inputs, marketing constraints, or social reasons. However, the results of the training still achieve benefits in increased knowledge and practical capability.

#### Box 4: A Champion for Women's Development

Jenifa Kena was a primary school dropout who in 2002 was a home-based wife and mother. She attended a Smallholder Support Services Pilot Project training on African yam production. She started her own production and did so well that she was asked to train another group of women. She proved to be a good trainer and became a regular support service provider. She had never signed a legal document or earned her own money. She then attended training on floriculture and also did well and started a floriculture business. Both activities flourished and she started buying



yams and flowers from other farmers and marketing them. Through her businesses, she has earned over K2,000,000 in the last 10 years. She now buys from over 100 farmers, both men and women, trains women in agriculture production, has purchased a vehicle and a restaurant, and has recently paid for her own overseas floriculture training.

Source: Evaluation mission field visit, December 2012.

59. **Sustainability is considered likely.** At the farm level, beneficiary capacity has been increased. Some farmers are using the knowledge gained to diversify and improve their production and marketing in the future. The development of basic skills related to financial literacy, agronomic practices, and processing have been a catalyst for select farmers to link with other opportunities and become more commercial. At the institutional level, project operations are continuing in both provinces even after project closure. The trust account is a good mechanism for sustainability, as the facility allows the DAL to operate in a responsive, controlled, and time-effective manner. In addition, the pilot project model is being replicated in Simbu Province and other elements of the approach are being used by other government agencies, NGOs, and international agency projects.

## CHAPTER 4

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# Other Assessments

### A. ADB and Executing Agency Performance

60. Overall, the performance of the borrower and executing agency is rated *satisfactory, though borderline*. The project was successful, but this was mainly due to the high demand for support from the smallholders and the quality of services provided at the provincial level rather than the overall borrower and executing agency performance. Initially, the national DAL, as the executing agency, fulfilled its expected role in starting up the project (e.g., PCU and trust accounts), and implementation benefited from a single project coordinator throughout the project period. A rating of *satisfactory* for project performance was achieved throughout most of the project implementation. The support services provider approach has been adopted by PNG's coffee industry and the adjacent Simbu provincial government. Project supervision, coordination, and operation were largely effective in ensuring that most expected outcomes were attained. The Department of Finance provided nearly \$1.0 million more in counterpart funds than expected at appraisal.

61. Nevertheless, substantial delays occurred in the completion of audit reports and issuance of audit certificates by the Auditor General's Office. There were considerable challenges in funds flow both from the national to provincial government and from the provincial government to the provincial DALs. The disruptions in funds flow was a main contributory factor to the need for two project extensions. The provincial DALs were hindered by cash flow difficulties from the respective provincial government. Although counterpart funding was provided at national level to overcome lower than expected provincial counterpart funding in Morobe, the overall counterpart funding provided was lower than loan agreement levels.

62. Moreover, the national DAL did not demonstrate a high degree of support for the pilot project, as had been envisaged in the project design. Project implementation was largely left to the provincial PCU, without sufficient strategic support from the executing agency. Implementation delays were not adequately addressed by the PCU and the national DAL. The project's potential as a pilot project for provincial and economic development was acknowledged in the NADP but the national DAL did not sufficiently seize the opportunity to capitalize on the learning of the pilot project. The lack of an effective M&E system meant that insufficient information was generated on the project as a pilot project for wider replication.

63. The national DAL, as the executing agency, executed its expected role as demonstrated in setting up the PCU and formulating the instruments for the trust accounts. The same project coordinator held the position throughout the project, which helped in building relationships with ADB officers, central agency officers, project staff, and other stakeholders.



64. **Overall, ADB performance is rated *satisfactory*.** ADB's PNG Resident Mission handled the administration of the project after 2005. Consultations and dialogue with government and with the executing and implementing agencies took place regularly. ADB fielded 10 project supervision missions during project implementation. Particularly in the early stages of the project, ADB worked with the national and provincial DALs to establish the project approaches. The establishment of the ADB PNG Resident Mission facilitated communications between the government and ADB, and contributed to a more comprehensive supervision approach. ADB was responsive to the national DAL's request to extend the loan closing date and to adjust the financing plan to accommodate changes in project costs. More could have been done to support the government to take advantage of the project and its pilot nature in line with the ADB strategic focus on knowledge solutions. This would have required supervision missions with more emphasis on learning, problem solving, and responsiveness with a view toward replication and upscaling.

## B. Institutional Development

65. **The project has made a contribution to institutional strengthening within the two pilot areas.** However, to different effect in each province. In Eastern Highlands Province, good practices have been directly embedded in the provincial DAL, e.g., the project-introduced PRAP has been slightly modified and is being used in all districts. The Eastern Highlands provincial DAL worked closely with the district DALs and has assisted them to strengthen their capacity in proposal writing and contracting. The service provider ranking practices have also been embedded in DAL recruitment processes for service providers and staff. The SSPA is not as active as in Morobe but still has about 60 financial members despite not yet being formally registered.

66. **Morobe Province.** In Morobe, the project office was established separately from the provincial DAL and operates virtually in an autonomous way with the service providers. The SSPA is registered. It has 104 financial members and over 300 members on its database. Many service providers are still operating and some at a higher level than before the project. For others, their ability to continue service provision is limited by available resources for contracts. Overall, the project mechanisms have been sustained but they lack strategic links with ongoing funding, therefore there is a higher risk in Morobe that processes may eventually cease.

67. **National level.** The institutional impact has been less than projected at the national level. The potential to replicate the pilot project's concept and processes in the NADP was lost because implementation funds were diverted for other purposes. The change in government officials has reduced the level of ownership of the pilot project during implementation, despite the consistent staffing in the PCU. Similarly in Morobe, the PCU operates independently, with little oversight and line management of the national DAL. This has led to the PCU being marginalized at present. There are, however, indications of a strengthening of the strategic focus of the national DAL with the generation of a new strategic plan. The strategic plan was in draft form during the evaluation mission and incorporated a clear direction toward a private sector approach at all levels, consistent with the pilot project's approach. Furthermore, a recent increase in core funding allocation to the districts may result in allocation to the contract facility.

68. **Organizations that support smallholder farmers and overall institutional capacity.** The project has improved the access of smallholder farmers to agricultural support services. The formation of farmers' groups has facilitated local service delivery

and improved service delivery by the DALs at each level. The access to private sector service provision through the trust fund facility is continuing albeit at a lower level than during project implementation. In terms of capacity building, the capacity of the national and provincial DAL staff to implement the support services providers approach to extension support services was strengthened.

### C. Impact

69. **Overall, the impact of the project was rated *moderate*.**<sup>17</sup> From an institutional perspective, there were clear positive effects on farmers' skills and knowledge from access to agriculture support services. The project has improved the access of smallholder farmers to agricultural support services through the trust fund activities. The Eastern Highlands DAL continues to be active in supporting smallholders. The Morobe DAL does not have as strong a relationship with smallholders, with most project support being carried on through the service provider network when funds are available. In terms of capacity building, the capacity of the national and provincial DAL staff to implement the support services providers approach to extension support services was strengthened. The skills of service providers were developed and improved through the business training provided by the project. At the national level, the institutional impact has been less evident. Although the pilot project's approach was identified as a mechanism for national smallholder support through the NADP, implementation of the plan has not eventuated.

70. **Follow-up to economic assessment shows continued impact.** Although baseline and comprehensive impact data are absent, the 62 economic assessments carried out in 2007 demonstrate an increase in production and an increase in income for about 80% of participant groups. Information is insufficient to determine the extent of benefit within the groups. A small sample, 16 of the 62 assessment participant groups (26%), were re-contacted during the evaluation mission; of these, 62% still demonstrate positive impacts such as an increase in production and an increase in income. The remaining 38% were considered failures. The analysis determined that six of the activities had failed, three because of lack of the required farm inputs, two caused by farmer group management issues, and one resulting from changing interest. Of the other 10 activities, six had continued successfully and expanded to the extent that the smallholder had significantly expanded their operations (Box 3) and the remaining four had not continued the specific activity in which they had received training because of changes in the market, but had successfully applied the financial management and post-harvest training to other activities and hence demonstrated a positive benefit. The remaining 10 (62.5%) demonstrated continuing impact from the support services, and six (37.5) of the sample showed signs that the original impact of the training had been capitalized on—leading to diversification, opening of new market links, post-harvest processing, and other secondary benefits.

71. **Mixed impact on women.** An associated objective of the project was to enhance the status of women in agriculture. The project design broadly defined this in terms of participation. The targeted participation rate for women was 30%. Women-only groups comprised 8.5% of the total contracts; this was considered to be the most effective means of reaching women participants. However, most of the groups were mixed, including a varying number of women participants, and leading to an average of about 33% women participants. The design was not specific in terms of expected quantitative and qualitative improvements in socioeconomic status for women but the

<sup>17</sup> Impact is rated as substantial (3), significant (2), moderate (1), or negligible (0).

evaluation mission did find substantial impact for women both in increased involvement in agricultural activities and in capacity. For instance, for many it was the first time they had been involved in planning activities (through PRAP), completed evaluation of service providers, and signed participation lists; and for women service providers, the first time they had signed contracts and had their own income (Box 4).

72. **Capacity developed.** The satisfaction levels for the training provided were high but the level of adoption was constrained by lack of capital for farmers to purchase the necessary materials to implement the training. The adoption rate was estimated to be over 20%, which is comparable with other training-only interventions for economic activities. The rate was improved when the respective DAL or support services provider staff gave follow-up support and coaching. Smallholders that participated in the project also benefited from this capacity building component in that they had experience of participatory planning, playing a central role in the decision making process that defined their support services' needs. A further secondary benefit from the PRAP was the frequent involvement of village leaders in the process. This led to a better understanding by local leaders of other development needs such as for seeds, infrastructure development, access to finance, etc. The PRAP activities were reported to lead to additional support, often financial, from the local governments beyond the direct technical support from the provincial DAL.

73. **Overall, the project has been a catalyst toward diversification and higher capacity for commercialization.** The improved financial literacy has contributed to longer term development in wider household and commercial activities. The impact for women has been good, leading to more confidence, knowledge, and engagement in market activities. In addition to the direct impact for project participants, some evidence exists of replication (indirect benefits) by other farmers as they observed and copied the improvements made by successful farmers and employment generation through farm labor and expanded agro-industry. The follow-on support of NZAID has provided some technical support to the two project provinces and led to expansion of the approach into Simbu and Central provinces. Simbu Province has been making good progress despite delays in receiving counterpart funding from the national DAL. Central Province has experienced internal staffing issues that have resulted in the suspension of project operations at present.

## CHAPTER 5

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# Issues, Lessons, and Follow-Up Actions

### A. Issues

74. **Poor monitoring and evaluation and knowledge management.** During project design, the technical review committee highlighted the need for a custom-designed M&E system from commencement, particularly because of the pilot nature of the project. This did not occur and the monitoring processes established were output oriented rather than focused on managing information for the innovations being tested through the project. The full project design documents did provide guidance on how the pilot project should be implemented. The intention was diluted, though, as the documents were summarized for loan processing and the project implementation guidelines were developed. The installation and operation of the MIS was delayed and incomplete. No comprehensive baseline information was gathered. The project offices did collect comprehensive data through the PRAP processes but this was not collated and synthesized as a means of generating learning.

75. **Lack of replication.** The pilot project in general was a successful investment. However, it was designed with a view to subsequent replication and scaling up. Important lessons were learned in shifting the Government of PNG to a competitive, private sector contract management approach. The lessons were incorporated in the NADP and the follow-on NZAID support but the implementation of both initiatives have stalled. While the initiatives in the two pilot provinces are likely to be sustained, no alternative mechanism has been identified for capitalizing on the lessons learned and knowledge generated.

### B. Lessons

76. **Service provider contracting was successful.** The project's use of contracting out as a new approach to the delivery of support services proved successful. It was relevant, effective, efficient, and benefits were mostly sustained. The contracting approach has improved the access of smallholder farmers to agricultural support services and has strengthened the institutional capacities of the national and provincial DALs and support services providers in implementing contractual service delivery. The approach has gained acceptance with and beyond the project stakeholders. Other provinces and development agencies have already replicated the support services provider model.

77. **The trust fund mechanism facilitated flexibility.** Prior to the pilot project, agricultural service provision suffered from bureaucratic delays that were not

appropriate to the seasonal and market requirements for agricultural development. The trust fund modality allowed an accountable and responsive mechanism that is being continued and valued by the provincial DALs and service providers.

**78. Participatory planning provided a strong foundation for local development activities.** The PRAP process was widely accepted by the targeted population. It was an effective mechanism for identifying required services but also served to identify local development needs. These included the formation of producer groups for higher level production, consolidation, and marketing. In addition, it led to broader economic support by local leaders for other requirements such as infrastructure and access to inputs. The demand-driven approach to planning identified important elements of success that were not originally in the project design; for instance, the demand for training proved to be a mixture of technical and financial training.

**79. Investment in service provision in agriculture as an economic catalyst.** This evaluation identified that post-project impact included additional benefits that had emerged from the catalytic effect of the pilot project's initiatives. The introduction of a contracting mechanism generated capacity within the provincial government to engage more with the private sector. This resulted in other initiatives such as trade fairs for local producers, use of service providers for other agriculture sector activities, and use of improved recruitment processes in other sectors. For service providers, many had not considered use of their skills within the private sector for service provision, e.g., past provincial DAL officers, lead farmers, etc. The opportunities under the pilot project led them to start a new enterprise, marketing their skills both independently and through the SSPA. For individual farmers, the training, particularly in post-harvest and enterprise skills, led to participants expanding and diversifying their economic activities for both agricultural and non-agricultural enterprises.

**80. Consolidation of the private sector contracting process.** The success of the pilot project approach provides a means to improve access to agricultural support services across PNG. More could have been done to capture the learning from the pilot activities and extend them nationwide in PNG. With replication of the pilot project and further devolution to provincial and district DAL's institutions, programs, and budgets, there is potential to improve agricultural quality, quantity, and local economic development. In this regard, the government needs to consider whether to take a strategic approach to private sector involvement in agriculture by adopting the project's approach in all provinces and districts as was proposed in the NADP, or whether the lessons learned will remain within the pilot provinces.

## C. Follow-up Actions

**81. Efficacy of pilot projects.** For ADB, the project provides useful lessons on how a pilot project can generate important knowledge but that a customized M&E system is critical. Management of knowledge, replication, and upscaling mechanisms require a specific focus during implementation and wider promotion of lessons should be considered when designing pilot projects in the future. ADB is no longer focused on the agriculture sector in PNG but the lessons can be incorporated through work with partners in PNG and in other relevant ADB pilot or extension projects.

# Appendixes

## APPENDIX 1: EVALUATION FRAMEWORK

Criteria	Specific Evaluation Questions/Indicators	Data Sources
<b>I. Project Performance</b>		
A. Relevance	Are project objectives consistent with national agriculture and rural development strategies and policies, the country strategies and concerned ADB sector policies (Food Security Action Plan), as well as the needs of the beneficiaries?	RRP Loan agreement
	Were the project strategy (i.e., component mix), corresponding financial allocations, project management and execution, supervision, and monitoring and evaluation arrangements appropriate for achieving the project's core objectives? Were the components of objectives realistic given local agro ecological and socioeconomic conditions?	Appraisal report MTR and BTORs PCR
	Has the project design been participatory, i.e., has it taken into consideration input and needs expressed by key stakeholders, including the government, executing agencies, service providers, and the expected beneficiaries?	PCR validation report 2003 CAPE/GAD evaluation
	Has the final appraisal report integrated relevant and pertinent lessons learned in PNG from ADB and evaluations as well as from management comments during design? Was the appraisal report consistent with the TA report? Did they gather key information on the local conditions?	Direct field observations by the evaluation mission
	Has the project benefited from available knowledge (for example, the experience of other similar projects in the area or in the country)?	Key informant interviews
	Assess ex-ante and ex-post relevance. Are the original objectives still relevant at the time of evaluation? Have significant changes in the project context or ADB policies been retrofitted to the design?	
	Was the linkage between development objectives, intended outcomes, and outputs coherent? Have project objectives remained relevant over the period of implementation?	
	Does the envisaged targeting approach facilitate access for disadvantaged groups/households (smallholders and women) as planned?	
	Did the project create a conducive environment for enhancing the technical and managerial capacities of key stakeholders (government and service providers)?	
	As this was a pilot project, was there sufficient M&E and flexibility in the design to learn from it and adapt the project as needed?	
B. Effectiveness	The objective of the project was to increase the access by smallholder households in two provinces to improved agricultural support services, thereby increasing agricultural	RRP Loan agreement

Criteria	Specific Evaluation Questions/Indicators	Data Sources
	production, productivity, and the income of smallholders, and helping to ensure the sustainability of their farming systems.	Appraisal report
	To what extent has the project objective been achieved? The evaluation will consider the DMF and other indicators such as:	MTR and BTORs
	Changes in the number of smallholders (those with less than 0.5 hectares) with access to support services	PCR
	Changes in the intensity/frequency of support services provided	PCR validation report
	Changes in the quality of support services	GAD evaluation
	Changes in the number of service providers	PCU documentation
	Changes in the effectiveness of service provision and linkages of service providers at different government levels	Direct field observations by the evaluation mission
	Did farming practices, area, and intensity change?	
	What were their changes in yields, total output, and cropping patterns?	Key informant interviews
	Did marketing practices change?	
	Has the sustainability of farming practices (soil and water protection, rotation, etc.) changed?	Focus group discussions
	An associated objective was to enhance the status of women in agriculture by focusing support services on food crop production, which traditionally was the domain of women. As such the evaluation will also consider:	
	Changes in support services for food production and women	
	Changes in women's use of support services	
	Changes in women's agricultural practices and yields	
	To what extent have the expected outputs been attained?	
	Output 1: Establishing a support service contract facility in each of the two provinces to improve performance-based contractual agricultural support services to smallholders	
	Output 2: Capacity building for agricultural staff at the national, provincial district, and local government levels, as well as for smallholder support service providers including semiprivate and nongovernment agencies and groups	
	Output 3: Effective project coordination, linking activities, and outputs	



Criteria	Specific Evaluation Questions/Indicators	Data Sources
	<p>Overall, the PPER will try to explain the outcomes achieved:</p> <p>What factors explain the reasons for the above results?</p> <p>In particular, were there any major changes in the overall context (e.g., policy framework, political situation, institutional set-up, etc.) that affected project implementation and overall results? If yes, what were they and did ADB and the government make the required adjustments to project design and implementation to ensure the achievement of objectives?</p>	
C. Efficiency	<p>The PPER will consider both economic and process level efficiency when assessing how resources were used to achieve the outcomes.</p> <p>What was the project EIRR? If it cannot be recalculated, the PPER will check the PCR assumptions and validate its EIRR.</p> <p>Is the cost ratio of inputs to outputs comparable to local, national, or regional benchmarks for support services?</p> <p>What are the loan costs per beneficiary reached (both at the time of appraisal and evaluation) and how do they compare with other loan costs of ADB (or those of other development partner) in PNG?</p> <p>What were the administrative costs per beneficiary reached and how do they compare with other ADB-funded operations (or those of other donors) in the same country or other countries?</p> <p>Were there any delays in project implementation and delivery that may affect benefits or costs in a significant manner?</p> <p>In addition to delays and cost overruns, were there unnecessary complications in project management that could have been avoided?</p> <p>What are the factors that help explain the efficiency performance?</p>	<p>RRP</p> <p>Loan agreement</p> <p>Appraisal report</p> <p>MTR and BTORs</p> <p>PCR</p> <p>PCR validation report</p> <p>PCU documentation</p> <p>Direct field observations by the evaluation mission</p> <p>Key informant interviews</p>
D. Sustainability	<p>Was a specific exist strategy prepared and agreed upon by key partners to ensure post-project sustainability?</p> <p>How resilient to changes (e.g., government and institutional arrangements) are the achievements?</p> <p>What are the chances that benefits generated by the project will continue in the medium term after project closure, and what factors militate in favor of or against maintaining benefits?</p> <p>Political sustainability: Is there clear indication of government commitment (both at national and local level) to supporting the project after the loan closing date, for</p>	<p>PCR</p> <p>PCR validation report</p> <p>PCU documentation</p> <p>Direct field observations by the evaluation mission</p>

Criteria	Specific Evaluation Questions/Indicators	Data Sources
	<p>example, in terms of provision of funds for selected activities, human resource availability, continuity of pro-poor policies and participatory development approaches, and institutional support?</p> <p>Social sustainability and ownership (as PNG is still a very traditional society): Do project activities benefit from the engagement, participation, and ownership of local communities, grassroots organizations, and the rural poor? Were the needs of indigenous communities addressed?</p> <p>Institutional/organizational sustainability: Are involved organizations/institutions endowed with sufficient staff, recurrent budget, and a mandate to continue providing critical services?</p> <p>Technical sustainability: Are adopted approaches technically viable? Do project users have access to adequate training for maintenance?</p> <p>Economic and financial sustainability: Are the economic activities promoted by the project generating economic profits or losses (net of subsidies)? What is the likely resilience of economic activities to shocks or progressive exposure to competition and reduction of subsidies?</p> <p>Environmental sustainability: Are the ecosystem and environmental resources (e.g., fresh water availability, soil fertility, vegetative cover) likely to contribute to project benefits or is a depletion process taking place?</p>	<p>Key informant interviews</p> <p>Focus group discussions</p>
<b>II. Institutional Development</b>		
A. Institutional Development	<p>Did agricultural institutions (e.g., Department of Agriculture and Livestock), service providers, and partners change?</p> <p>Within these public and private institutions, are there signs of improved management capacity, skills, etc.?</p> <p>Did national/sectoral policies or the regulatory framework affecting the target group change?</p> <p>Did market structures and other characteristics affecting the small farmers' access to services change?</p>	<p>PCR</p> <p>PCR validation report</p> <p>PCU documentation</p> <p>Direct field observations by the evaluation mission</p> <p>Key informant interviews</p> <p>Focus group discussions</p>

Criteria	Specific Evaluation Questions/Indicators	Data Sources
B. Impact	Did the composition and size of household incomes change (more income sources, more diversification, higher income)?	PCR PCR validation
	Did farm households' physical assets change (farmland, water, livestock, trees, equipment, etc.)?	PCU documentation
	Did other household assets change (houses, bicycles, radios, telephones, etc.)?	Direct field observations by the evaluation mission
	Did beneficiaries have adequate access to markets to take advantage of enhanced productivity and production?	Key informant interviews
	Did the natural resources base status change (land, water, forest, etc.)? Are there any signs of increased/decreased soil fertility?	Focus group discussions
<b>III. Other Assessments</b>		
A. ADB Performance (quality-at-entry and supervision)	Did ADB mobilize adequate technical expertise in the project design?	RRP
	Was the design process participatory (with national and local agencies, grassroots organizations)?	PCR PCR validation report
	Were specific efforts made to incorporate the lessons and recommendations from previous independent evaluations and PCRs in project design?	PCU documentation
	Did ADB (and the government) take the initiative to suitably modify the project design (if required) during implementation in response to any major changes in the context?	Direct field observations by the evaluation mission
	What was the performance of ADB supervision?	Key informant interviews
	Was prompt action taken to ensure the timely implementation of recommendations from BTORs, including the MTR?	Focus group discussions
	Did ADB undertake the necessary follow-up to resolve any implementation bottlenecks?	
	What was the role and performance of the resident mission?	
	How was the relationship between headquarters and the resident mission to support implementation?	
	Has ADB been active in creating an effective partnership and coordination among key partners to ensure the achievement of project objectives?	

Criteria	Specific Evaluation Questions/Indicators	Data Sources
B. Borrower Performance (quality of preparation, implementation, and M&E)	Did the government and ADB take the initiative to suitably modify the project design (if required) during implementation in response to any major changes in the context?	RRP PCR
	Has the government contributed to planning an exit strategy and/or making arrangements for continued funding of certain activities?	PCR validation report
	Was the government actively involved in the design?	PCU documentation
	Has the government correctly assumed ownership and responsibility for the project? By its actions and policies, has the government been fully supportive of project goals?	Direct field observations by the evaluation mission
	Has adequate staffing and project management been assured? Have appropriate levels of counterpart funds been provided on time?	Key informant interviews
	Has project management discharged its functions adequately, and has the government provided policy guidance to project management when required?	Focus group discussions
	Did the government ensure adequate coordination of the various departments involved in execution? At both the national and provincial levels?	
	Has auditing been undertaken in a timely manner and reports submitted as required?	
	Has an effective M&E system been put in place and does it generate information on performance and impact that is useful for project management to take critical decisions?	
	Have loan covenants and the spirit of the loan agreement been followed?	
	Has the government facilitated the participation of service providers as planned?	
	Have the flow of funds and procurement procedures been suitable for ensuring timely implementation?	

ADB = Asian Development Bank, BTOR = back-to-office report, CAPE = country assistance program evaluation, DMF = design and monitoring framework, EIRR = economic internal rate of return, GAD = gender and development, M&E = monitoring and evaluation, MTR = midterm review, PCR = project completion report, PCU = project coordination unit, PNG = Papua New Guinea, PPER = project performance evaluation report, RRP = report and recommendation of the President, TA = technical assistance.  
Source: Independent Evaluation Department.

## APPENDIX 2: EVALUATION MISSION ITINERARY

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Date/Time	Activity
<b>26 November 2012, Monday</b>	
13:00	Department of National Planning and Monitoring
14:00	Department of Treasury
14:30	Project Administration Unit team leader and other Papua New Guinea Resident Mission staff
15:30	Papua New Guinea Resident Mission country director
16:00	Security briefing
<b>27 November 2012, Tuesday</b>	
09:00	Project coordinator Department of Agriculture and Livestock
10:00	Secretary of Department of Agriculture and Livestock
11:00	Senior National Department of Agriculture and Livestock officers
<b>28 November 2012, Wednesday</b>	
09:00	World Bank operations officer for sustainable development
13:00	Australian Agency for International Development
15:00	New Zealand Agency for International Development
<b>29 November 2012, Thursday</b>	
13:30	Project coordinator Department of Agriculture and Livestock
<b>30 November 2012, Friday</b>	
11:00	European Delegation to Papua New Guinea
<b>03 December 2012, Monday</b>	
09:00	Department of Agriculture and Livestock office in Morobe Province
11:30	Deputy provincial administrator for Morobe Provincial Office Meeting with smallholder beneficiaries, nongovernment organizations, and farmers Meetings with other project level stakeholders
<b>04 December 2012, Tuesday</b>	
14:00	Meeting with support services contract facility manager Department of Agriculture and Livestock in Eastern Highlands
15:00	Support services contract facility
<b>05 December 2012, Wednesday</b>	
10:00	Smallholder beneficiaries, nongovernment organizations, and farmers Meetings with other project level stakeholders
<b>06 December 2012, Thursday</b>	
17:35	Smallholder beneficiaries, nongovernment organizations, and farmers Meetings with other project level stakeholders
<b>07 December 2012, Friday</b>	
10:00	Wrap-up meeting with Department of National Planning and Monitoring (aide-mémoire)

## APPENDIX 3: LIST OF PERSONS MET

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- A. Department of Agriculture and Livestock**
  - 1. Dr. Vele Pat Ila'Ava, Secretary
  - 2. Masayan Moat, Acting Deputy Secretary
- B. Department of National Planning and Monitoring**

Koney Samuel, Assistant Secretary
- C. Department of Treasury, Financial Management Division**

John A. Uware, Acting First Assistant Secretary
- D. Fresh Produce Development Agency**
  - 1. Moses Moruba, Senior Agronomist
  - 2. McKenzie Ziggins, Extension Training Manager
  - 3. Moses Woriga, Crop Agronomy Extension
- E. Goroka Provincial Administration**
  - 1. Rose Kurun, Extension Officer
  - 2. Igu Yawane, Provincial Livestock Officer
  - 3. Ekesu Margu, Project Manager–Eastern Highlands Province
  - 4. Enoch Yabimo, Spice Officer, Assisting SSSDP
  - 5. Silas Kiafuli, Provincial Fisheries Officer
  - 6. Rodney Sien, Assisting Agriculture PHQHP
  - 7. Naismeun Mitio, Rice and Grains Officer
  - 8. Stanley Loke, Project Accounts Officer
  - 9. Bubia Muhuju, Director–Department of Agriculture and Livestock, Eastern Highlands
  - 10. Hendrix Fungkepe, District Agriculture Officer
  - 11. Zepy Mopafi, Ex-Principal Project Officer
- F. Siubu Provincial Administration, Division of Agriculture**
  - 1. Damien Toki, Principal Advisor
  - 2. Morris Kaupa, Support Services Contract Facility Manager–Kundiawa
- G. Asian Development Bank**

Kymberley Kepore, Private Sector Development Coordinator
- H. Delegation of the European Union to Papua New Guinea**

Clement Bourse, Attaché–Rural Development
- I. International Labour Organization**

Line Begby, Associate Expert
- J. New Zealand Agency for International Development**

Viola Digwaleu, Development Programme Coordinator
- K. World Bank**
  - 1. Allan Tobalbal Oliver, Operations Office–Rural Development, Natural Resources and Environment–Sustainable Development
  - 2. Craig Stemp, Country Security Advisor
  - 3. David F. Freyne, Project Manager–World Bank Productive Partnerships in Agriculture Project
  - 4. David Young, World Bank Productive Partnerships in Agriculture Project

- L. Bris Kanda, Inc.**
  - 1. Levi B. ToViliran, General Manager
  - 2. Tabasco Naime, Assistant General Manager
  - 3. Ruddle Artango, Representative–Bris Kanda Board
- M. Coffee Industry Corporation**

Navi Anis, Chief Executive Officer
- N. PNG Coffee Exports**

John Leahy, General Manager
- O. PNG Sustainable Development Program**

Potaisa Hombunaka, Program Manager–Agriculture
- P. Smallholder Support Services Expansion Project**

Martin Raurela, Deputy Advisor
- Q. Service Providers**
  - 1. Aran Batton
  - 2. Levi Bougaratta
  - 3. Adam Brown
  - 4. Tyruku Daitaru
  - 5. Heron Gapa
  - 6. Giwa Garry
  - 7. Tina Heting
  - 8. Eggref Hilliam
  - 9. John Hut
  - 10. Mere Igu, Yams Training
  - 11. Martha Issac
  - 12. Lloyd Katao
  - 13. Jenifa Kena, Cooking
  - 14. Wayo Kipi
  - 15. Rose Kurun, Vegetable Production Skills
  - 16. Tom Leinan
  - 17. Andrew Lepari
  - 18. Blandina Luare
  - 19. Mita Mafunge
  - 20. Keith Milligan
  - 21. Bruce Murray
  - 22. Elcie Samuel
  - 23. Jacob Solomon
  - 24. Atum Timi
  - 25. Tony Westaway
- R. Others**
  - 1. Greg Bosa, PDAL Coordinator Export Crop
  - 2. Ken Elownan, Manager SSCF/PDAC
  - 3. Solly Karero, Field Manager
  - 4. Mr Gitan, Agriculture Manager
  - 5. Augustine Yabina, Agriculture Advisor–CPDAL

## APPENDIX 4: PROJECT DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets	Monitoring Mechanism	Assumptions and Risks
<p><b>1. Goals</b></p> <p>To increase production, productivity, and income of smallholder households in the Eastern Highlands and Morobe provinces and to ensure sustainability of farming systems</p> <p>To enhance the status of women in agriculture</p>	<p>Raised income of smallholders</p> <p>Increased crop and livestock production and productivity</p> <p>More sustainable cropping and livestock practices</p>	<p>Periodic socioeconomic and environmental surveys</p> <p>Provincial monitoring and evaluation systems</p> <p>Agricultural management information system</p>	<p>No natural disasters</p> <p>Political stability</p> <p>Decentralization process continues</p> <p>Continued political support for smallholder agriculture and women in agriculture</p>
<p><b>2. Objective</b></p> <p>To increase access by smallholders to improved agricultural support services in the two provinces</p>	<p>Increased number of smallholder with access to support services</p> <p>Increased intensity of support services</p> <p>Improved quality of support services</p> <p>Increased number of service providers</p> <p>Increased effectiveness and coordination of service provision</p> <p>Improved linkages of service providers at different government levels</p>	<p>Provincial monitoring and evaluation systems</p> <p>Agricultural management information system</p> <p>Quarterly monitoring and progress reports</p>	<p>Adequate counterpart funding, design, and management of support services contract facility</p> <p>Roles of government agricultural staff adjusted</p> <p>Sufficient interest and capability of potential support service providers</p> <p>Focus of service provision on smallholder needs</p>
<p><b>3. Components/ Outputs</b></p> <p>3.1 Support services contract facility (SSCF) established and operating</p>	<p>SSCF imprest and counterpart trust accounts established (Year 1, Quarter 2)</p> <p>SSCF management unit established and operational (staff, office, vehicles, and equipment provided; Year 1)</p> <p>SSCF steering committee established (Year 1, Quarter 2)</p>	<p>Quarterly monitoring and progress reports</p> <p>Review missions</p>	<p>Provision of necessary budgetary appropriations and counterpart staff at national and provincial levels</p> <p>Adequate implementation capacity of agricultural staff and support service providers</p>



Design Summary	Performance Targets	Monitoring Mechanism	Assumptions and Risks
3.2 Capacity of government agricultural staff and support service providers improved	<p>Planning workshops conducted (3 workshops per year in Eastern Highlands and 4 in Morobe; Years 3–5)</p> <p>Management information system installed and training provided in 8 districts in Eastern Highlands and 9 districts in Morobe (Year 1)</p> <p>Agricultural staff training provided (3 courses per year and province; Year 2–5)</p> <p>Support service providers training provided (one courser per year and province; Years 1–5)</p>	<p>Quarterly monitoring and progress reports</p> <p>Review missions</p>	<p>Coordination of national, provincial, district, and local government levels</p> <p>Provision of appropriate and relevant workshops and training</p> <p>Strong commitment and motivation of agricultural staff</p>
3.3 Project coordination established and operating	Project coordination unit established (staff and equipment provided; Year 1, Quarter 2)	<p>Quarterly monitoring and progress reports</p> <p>Review missions</p>	Provision of adequate counterpart staff and support from the Department of Agriculture and Livestock

Source: ADB. 1998. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to Papua New Guinea for the Smallholder Support Services Pilot Project*. Manila.

## APPENDIX 5: EVALUATION ECONOMIC ASSESSMENT 2007

Table A5.1: Evaluation Summary for Morobe Province

Project	Year Implemented	Year Evaluated	Contract Cost (K'000)	Group Size		Cost Per Beneficiary	EIRR (%)	Incremental			SP Satisfaction Score	Overall Impact Assessment			
				No.	% Women			HH Cash Income	HH Labor (Days)	Cash/Day		ENV	SOC	FIN	SUS
Munum Vanilla	2003	2004	3,000	22	0	136	V. High				79	80	66	92	68
Mare Vanilla		2004	3,224	22	9	147	V. High				95	80	66	86	78
Labu-Puseka Vanilla		2004	4,992	39	3	128	V. High				86	66	66	54	68
Lae Vanilla Processing		2004					V. High					78	62	78	76
Wawin Cattle	2004	2004	1,936				(...)				86	66	70	54	72
Markham Rice		2004	2,654	34	50	78	V. High	1,540	37	42	79	56	76	58	68
Ragidupiat Cocoa PRAP	2004	2006	3,484	102	27	34	48	1,700	37	46	73	72	72	68	62
Sokham Vanilla	2004	2006	4,500	127	30	35	59	1,200	35	34	80	60	50	82	52
Situm Vanilla	2003	2006		13	23	0	V. High				72	68	80	80	72
Derim Coffee	2002	2006	4,952	24	13	206	5	260	19	14	92	46	48	80	58
Keimbu Vanilla							(...)					82		70	66
Nutmeg Coffee							(...)					70		70	70
Samsam Poultry	2003	2005	3,074	42	50	73	V. High	2,300	280	8	80	68	80	40	20
Bau Vanilla	2003	2004	3,000	20	50	150	V. High	2,400	39	62	68	70	68	98	66
Markham Yam and Taro	2003	2004	4,611	55	64	84	V. High	2,500	55	45	78	70	72	78	62
Markham Bulb Onion	2003	2004	2,597	31	32	84	Negative	150	44	3	81	68	72	20	50
Kabwum Sheep	2002	2006	9,527				9	2,020	50	40	91	90	80	50	72
Boana Vanilla	2003	2006	4,981	52	2	96	(...)					56	58		50
Humako Rice	2003	2006	4,800	32	0	150	(...)				70	80	50		20
Bau Oil Press	2003	2004	2,014	40	100	50	Negative				82	72	66	20	60
Baiun Broilers	2003	2005	3,074				V. High	1,272	18	18	80	68	80	73	62
Kuembu Vanilla PRAP	2004	2006	5,000	127	30	39	Low	337	32	11	80	83	70	86	66
Waran Coffee Quality	2005	2007	4,946	35	3	141	12	847	50	17	91	90	85	80	73
Bonga Fish Nets	2003	2005	4,075	30	100	135	(...)				85				
Wawin Food Processing	2004	2007	4,975	32	100	155	(...)				56	80	90	60	61
Tent City Food Processing	2004	2007	2,597	31	100	84	(...)				84	80	90	60	63
Bulolo Oil Press	2003	2005	1,443	13	85	111	(...)				91	70	80	87	74
Ragidumpiat Cocoa	2005	2007	6,595	21	0	314	(...)				70	93	88	75	63
Waran Coffee Pests	2006	2007	6,452	30	3	215	12	847	50	17	89	90	86	80	80
Waran Inland Fish	2006	2007	5,000	13	0	385	72	1,914	110	17	94	78	85	75	63
<b>Averages</b>			<b>4,135</b>	<b>41</b>	<b>37</b>	<b>100</b>	<b>31</b>	<b>1,563</b>	<b>66</b>	<b>24</b>	<b>81</b>	<b>73</b>	<b>72</b>	<b>69</b>	<b>63</b>

(...) = data not available, EIRR = economic internal rate of return, ENV = environmental, FIN = financial, HH = household, No. = number, PRAP = participatory rural appraisal planning, SOC = social, SP = service provider, SUS = sustainability, V. = very.

Source: Project completion report.

**Table A5.2: Evaluation Summary for Eastern Highlands Province**

Project	Year Implemented	Year Evaluated	Contract Cost (K'000)	Group Size		Cost Per Beneficiary	EIRR (%)	Incremental			SP Satisfaction Score	Overall Impact Assessment			
				No.	% Women			HH Cash Income	HH Labor (Days)	Cash/Day		ENV	SOC	FIN	SUS
Kamano 2 Chilli	2001	2004	5,700	20	5	285	(...)				78	40	40	40	40
Gimisave Fish	2002	2004	3,500	27	11	130	V. High	4,020	48	84	73	80	60	60	80
Asukena Vegetables	2004	2004	7,830	49	92	160	V. High	1,300	36	36	87	80	60	80	60
Kenetisaro Fish	2004	2004	4,050	27	11	150	49	1,310	48	27	81	60	80	60	80
Mai Ducks	2003		11,468	14	0	819	17	1,382	28	49	70	60	60	20	
Gahana Coffee	2004	2005	7,171	26	0	276	22	710	18	39	80	40	60	80	60
Kami Bees	2004	2005	14,125	9	11	1,569	Negative	510	8	64	90	100	80	80	60
Lampo Tomatoes	2006	2006	13,275	12	8	1,106	33	3,418	260	13	84	60	60	80	80
BK Siane Sheep	2003	2004	15,860	50	32	317	Negative	450	182	2	97	80	100	50	80
Iffiufa Carrots	2006	2006	10,758	17	6	633	Negative	1,700	320	5	77	60	60	60	60
Juvagi Fish	2003	2004	6,700	20	0	335	(...)				82	80	60	60	80
Avata Fish	2002	2004	15,875	24	25	661	32	1,800	48	38	63	60	80	60	80
Akiyuga Coffee Bookkeeping	2005	2007	4,000				(...)								
Gipaheka Floriculture	2005	2007	37,425	23	100	1,627	Negative				79				
Mapi Fish Husbandry	2005	2007	5,110	26		197	34	1,276	108	12	83	60	80	100	80
Middle Bena Bookkeeping	2005	2007	3,053				(...)				80				
Gotomi Honey Cooking	2006	2007	3,020	43		70	(...)				78				
Aukanapa Sheep	2005	2007	15,830	35	29	452	27	2,850	12	238	76	60	60	80	40
Daulo Potatoes	2005	2007	18,580	64	20	290	44	1,070	90	12	76	60	80	100	80
Jonivi Fish	2005	2007	7,200	40		180	Negative								
Gotomi Honey Bees	2006	2007	11,154	28	11	398	5	505	24	21	81	60	80	30	60
Akiyuga Coffee	2005	2007	13,080	60		218	44	1,772	20	89	91	80	80	90	80
Aukanapa Cooking	2005	2007	3,880	35	29	111	(...)				78				
Bata Citrus Cooking	2005	2007	2,370		100		(...)				86				
Isontenu Bookkeeping	2005	2007	3,530	35	29	101	(...)				81				
Isontenu Poultry	2005	2007	10,220	35	29	292	36	718	20	36	81	60	80	90	80
Middle Bena Honey Bee	2005	2007	17,504	64	20	274	16	516	12	43	86	80	80	70	70
Liorofa Sheep	2005	2007	20,615	50		412	46	3,770	48	79	79	80	80	80	80
Inenento Sheep	2002	2007	9,800				31	1,510	24	63	85	60	100	70	70
Bata Citrus Husbandry	2005	2007	9,355	29	96	323	Negative	41	60	1	77	60	80	20	20
Liorofa Cooking	2005	2007	3,460	50		69	(...)				79				
Bata Bookkeeping	2005	2007	2,755	29	96	95	(...)				81				
<b>Averages</b>			<b>9,945</b>	<b>34</b>	<b>33</b>	<b>296</b>	<b>31</b>	<b>1,531</b>	<b>71</b>	<b>22</b>	<b>81</b>	<b>66</b>	<b>73</b>	<b>66</b>	<b>68</b>

(...) = data not available, EIRR = economic internal rate of return, ENV = environmental, FIN = financial, HH = household, No. = number, SOC = social, SP = service provider, SUS = sustainability, V. = very.

Source: Project completion report.